



Helen Keller
INTERNATIONAL

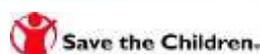
HARANDE Project

Mali 2015-2020

**Formative Research for Social & Behavior Change
(SBC)
in nutrition, reproductive health and
WASH**



USAID
FROM THE AMERICAN PEOPLE



Final Version
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Report submitted by
Caterina Monti
BSc Hon, MA, DTE, DTMH

Cover photo: FGD with mothers of children under 2

Address all correspondence to Caterina Monti
amritsat@yahoo.com

Contents

List of Figures	4
List of Tables	4
List of Acronyms	5
Executive Summary: key insights and discoveries	6
1 Background Information.....	13
1.1 The Harande project	13
1.2 Formative research purpose	14
1.3 Theoretical framework for research and analysis	14
2 Methodology.....	15
2.1 Data collection methods.....	15
2.2 Investigation team composition and tasks distribution	16
2.3 Ethical consent	17
2.4 Selection of study villages and participants	18
2.5 Sample size and justification	19
2.5.1 Quantitative data	19
2.5.2 Qualitative data	19
2.6 Data analysis approach	20
2.7 Limitation and constraints of study methodology.....	21
3 Formative Research Findings	22
3.1 Findings related to Reproductive Health.....	23
3.2 Findings Related to Maternal Nutrition.....	25
3.3 Findings related to Infant and Young Child Feeding and Caring Practices	27
3.4 Findings related to WASH	30
3.5 Findings related to Media Exposure and Listening Practices	32
4 Discussion and Conclusions	33
4.1 Implications for Social and Behavior Change Strategy.....	37
4.1.1 General implications and recommendations	37
4.1.2 Uptake of family planning and perceptions of reproductive health	38
4.1.3 Improving child nutrition and care practices	39
4.1.4 Improving maternal nutrition	40
4.1.5 Improving hygiene and sanitation	41
4.1.6 Utilization of media for health campaigning.....	41

5	Annexes to the Report	43
5.1	Annex 1: Scope of Work	44
I.	Purpose of Study	46
II.	Methodology:	47
III.	Study Personnel	53
IV.	Timeline	55
5.2	Annex 2: Data Collection Overview	60
5.3	Annex 3: Data Collection Tools	61
5.3.1	Household observations	61
5.3.2	FGDs with Pregnant Mothers and Breastfeeding Mothers of children under 2 ...	62
5.3.3	Focus Group Discussions with Fathers of children under 2	67
5.3.4	Focus Group Discussions with Grandmothers and Mothers-in-law of children under 2	70
5.3.5	KIIs with stakeholders.....	72
6	References	77
7	Bibliography	79

List of Figures

Figure 1: Location of four project districts.....	13
Figure 2: Research team composition.....	16
Figure 3: Teams composition.....	17
Figure 4: Villages sampled per district.....	18
Figure 5: Misola bag.....	19
Figure 6: a FGD with mothers discussing children nutrition.....	28
Figure 7: an example of sippy cup.....	29

List of Tables

Table 1: Harande goal and purposes.....	14
Table 2: Discussion topics for data collection.....	15
Table 3: Focus group discussion by topic and participants type.....	20
Table 4: WASH spot-check observation findings.....	31

List of Acronyms

DHS	Demographic and Health Survey
ENA-EHA	Essential Nutrition Actions-Essential Hygiene Actions
FGDs	Focus Group Discussions
HKI	Helen Keller International
KIIs	Key Informant Interviews
SBCC	Social and Behavior Communication Change Strategy
SC	Save the Children

Executive Summary: key insights and discoveries

Research Background

The Harande project is implemented in the region of Mopti, Mali by a consortium of six NGOs with CARE as the lead: the other members are Helen Keller International (HKI), Save the Children (SC), and three Malian NGOs responsible for implementing field activities: YA-G-TU (in English 'Organization for Women's Promotion'), Sahel-Eco and GRAT (in English 'Research and Technical Applications Group'). The project has a duration of five years and its main goal is to provide sustainable food, nutrition and income security for 270,000 vulnerable household members spread out in 16 *communes* in four districts (*cercles*). The area includes the districts of Youwarou, Tenenkou, Bandiagara and Douentza. HARANDE has five major intersecting purposes, aiming to enhance human capital including nutrition, WASH, family planning, literacy and life skills and to foster diversified livelihoods. The project aims to increase resilience to climate change and shocks and the ability to prevent and mitigate conflicts

Between July and August 2016 formative research was carried out by HKI with the overall scope to gather evidence about current practices in nutrition, reproductive health and WASH and identify appropriate strategies for achieving project social and behaviour change outcomes. The formative research explored behaviors, focusing on improving the health and nutritional status of pregnant and lactating women as well as children, and improving access to and utilization of WASH infrastructure. The research findings will be used to generate a robust Social and Behavior Change Communication Strategy (SBCC) focused on several key practices. Topics explored by the research were reproductive health, children and maternal nutrition, WASH and media exposure.

Secondary data – relevant literature review – and primary data with focus on qualitative data were used to gather information. Tools used to collect data included Focus Group Discussions (FGDs) and Key Informant Interviews (KIIs). Informants invited to participate in the FGDs included pregnant and breastfeeding women of children under 2 years of age, fathers of children under the age of 2, and grandmothers of children under 2 years. For the KIIs, priority was given to religious and community leaders. Where available, community health volunteers and health staff from the local health posts or local NGOs were interviewed. Observations of handwashing and sanitation facilities were also conducted in a representative sample of households in each research site. In addition to exploring the knowledge of local communities of the fortified flour *Misola*, the researchers intended to investigate the marketing strategies of producers by interviewing employees of local *Misola* production centers. Unfortunately, no such informants were found.

Field data collection was carried out by two teams, each comprised of three interviewers and one supervisor. Informed consent was requested in writing from all participants. For this field research, three out of the four Harande-targeted *cercles* were selected. For each included *cercle*, five villages were included in the research.

Major limitations to the research included restriction of movement imposed by the current security situation in the Mopti region, language barriers due to the limited knowledge of Mali's official language by informants, and difficulties faced by the field research teams in deviating from the script of the interview guides to 'dig out' unexpected insights into behavioral barriers and facilitators.

A total of 50 FGDs were carried out. Twenty involved pregnant or breastfeeding women, 15 involved fathers of children under the age of 2, and 15 were with grandmothers or other elder women. Community and/or religious leaders were interviewed in each village, and a total of 16 participated. Five community health volunteers and five health agents were interviewed by the research teams. Unfortunately, no Misola producers and no NGO representatives were located for interviews. A total of 153 spot-check observations of hygiene and sanitation facilities were conducted at the household level

Key Insights and Discoveries

The formative research did not highlight any substantial differences in health practices and knowledge among the different ethnic groups, but small local variances are identifiable especially in terms of access to health services and markets.

The role that elder women, especially the women's mothers-in-law, play in family life is dominant, particularly within the Peulh communities. They are responsible for food allocation at meals, advise on maternal health including family planning, and are in charge of infant and children feeding and care, especially when mothers are not at home.

The prevailing idea among all women is that a pregnant woman should eat less to reduce the risk of a difficult delivery and the need for skilled health assistance from hospitals, which most families cannot afford. Meagre access to nutritious food due to poverty also contributes to a poor diet, although the occasional enrichment with peanuts, fish and milk where available shows that people do believe women should eat food of improved quality

Marriage at an early age is still widespread, and it is encouraged by families to avoid shame of pregnancy before marriage as well as by peer pressure from fellow girls. In parents' opinion, it is the exposure to explicit content through cell phones and TV that has a negative influence on youth and encourages them to have sexual relationships before marriage. Parents also speculated that girls would feel excluded if they did not marry early and have children like other girls their age.

The findings of the research suggest that effective family planning promotion will require four conditions. First, confidentiality should be ensured, meaning that counselling services only involve the wife and husband and discussions are not shared outside the couple. Second, family planning services should

be made more accessible at the village level since travel to the health center is not always possible and some women indicate they are reluctant to request family planning from male health agents. Third, both men and women need to be persuaded to want smaller families, to believe in the risk of early childbearing, and to believe in the safety of long-lasting family planning methods. Four, Harande should promote counselling for the couple together and enable couples to communicate and negotiate contraceptive use.

Malnutrition is a well-known condition in the villages and has many names. Causes identified include the poor nutritional status of the mother, unhygienic living conditions, and poverty related to the meagre income generated by agriculture and other livelihood activities. Nutritious food options for both childbearing women and children are, in fact, limited. Once children are weaned, they eat the same poor quality diet as their parents. While nutrient-dense foods – such as eggs, chicken and fish – are potentially available, quantities are limited and prices often beyond the means of families, or home production is sold to make ends meet rather than consumed by the family. Kitchen gardening activities have been started by some organizations, and they seem to have contributed to expanding food variety, at least for fruits and vegetables seasonally. Women do know of Misola and would be ready to contribute to buying it, although in very small amounts given current market prices of the product. Although acute malnutrition is often recognized, parents reported preferring to take their malnourished children to traditional healers first, and only after traditional care is proven ineffective, to the health center. An important barrier to seeking health services is the concern about the cost of transport and treatment.

Infants do not benefit from exclusive breastfeeding, as liquids of different kinds are provided from birth and the belief is widespread that breastmilk is not nutritious enough.

The research did not uncover the extent to which the feeding of children 6-23 months is supervised by adults and how. This is crucial, since smaller children need help to ensure they get the right quantity and best possible quality of food. An issue that did emerge during the research is the apparent different nutritional treatment boys and girls receive. Some respondents indicated that boys sometimes get preferential feeding and thus girls are more likely to become malnourished, while one health agent reported treating more girls for acute malnutrition. This needs to be further explored.

Hygiene knowledge appears to be good, but practices are still weak. It is likely that the population has gained knowledge through other recent WASH initiatives. However, soap is not commonly available for handwashing, and thus hands are more often washed with water only. People report that hand washing is good to avoid diseases but also say that they are more likely to wash their hands with soap if their hands smell bad or have visible dirt on them, suggesting that appearance is a stronger trigger than the risk of disease. One high-risk practice mentioned by many informants was the use of sippy cups and bottles (*biberons*) for infant feeding. These utensils are difficult to sterilize and thus very easily

contaminated. Families see them as convenient to use when mothers are absent, while the dangers are likely not well known.

The concept of dedicated hand washing stations is rather unknown in the research villages, but informants recognized the benefits of having available soap and running water, so it is likely that providing ideas for the construction and implementation of very simple stations would be welcomed.

Latrine ownership and maintenance may also need further investigation. Some people said they prefer to defecate in the open due to the poor state of some latrines – pits are full. Both men and women expressed dislike of shared latrines or those in open spaces where they can be easily observed using the facility

Radio listening appears to be popular in the research villages and is considered a good method for receiving information. Listening is regular, in mornings and evenings. Due to language barriers, programs should be developed and broadcast in local languages; programs targeting women's groups are especially welcome. Although many different groups are active in the villages, none of the informants mentioned these as an effective means to share and spread information. Informants suggested that all important information should go through the community leaders and possibly be shared in formal meetings or through direct communication with the leaders.

Recommendations

General implications and recommendations

- This research confirms the power that elderly women have in influencing family decisions concerning nutrition of mothers and children, family planning and child care, although there was some variation in this power across ethnic groups. It is therefore pivotal to work with and through them to encourage the adoption of healthier practices.
- Other stakeholders will also need to be involved in this sensitization process. It has been noted that religious leaders might have quite conservative views, especially regarding family planning. Harande should therefore recruit carefully to identify those well-informed imams who can reassure the population that the Koran accepts birth spacing and encourage them to sensitize other religious figures to support the adoption of healthier behaviors.
- The community mobilization component will also be crucial to a successful SBC strategy. In order to lay foundations for this process, the findings from this report as well as implications and recommendations for the implementation strategy should be shared with the communities that contributed to the research study.
- All messages should be pretested with focus groups from target communities to confirm that they: 1) are understood correctly; 2) are motivating and memorable; and 3) take into

consideration key barriers and facilitators. Only then should they be included in the SBC strategy.

- Harande project organizations should rely as much as possible on existing community groups to mobilize participants and avoiding creating competing or redundant groups.

Uptake of family planning and perceptions of reproductive health

- The research indicated a need to increase access to family planning services. At the community level, local community health volunteers will need training on Essential Nutrition & Hygiene Actions as well as on how to counsel couples on contraceptive options, provide all options as permitted by the Malian government, and guarantee confidentiality.
- Perceptions of family planning and the value placed on it need to be improved at the community level, and different layers of society must be involved: community leaders – especially religious leaders and elder women who have themselves been sensitized - should be involved in sensitization campaigns. Men who have travelled and returned with a more positive attitude towards family planning should be identified, and those willing should be recruited to be advocates among other men, perhaps through men's discussion groups (*Ecoles de Maris*), to promote benefits such as the well-being of families and lessening the economic pressure that a large family places on limited livelihood.
- In order to change the custom of early marriage, social norms must evolve and peer pressure must be addressed. Since the Harande project plans to establish literacy programs, vocational training and enterprise groups for youth, these could become a platform for empowering girls and encouraging them to remain in school or pursue income generation activities as a way to defer marriage or at least defer child bearing.
- Since early marriages are also encouraged by families, it will be crucial to persuade parents of the risk of early pregnancies, which can end in maternal death. The healthfulness of using contraception during marriage should become acceptable for teens as well as older women, although it is likely that different messages and strategies need to be developed for these two different groups.

Improving child nutrition and care practices

- Health-seeking behavior of mothers and caretakers appeared poor and directed first towards traditional healers. In order to improve outreach and referral of malnourished children and of sick children in general, several actions can be recommended for Harande. Firstly, an assessment of the quality of services provided at local health centers would be useful, including an examination of how patients are received and how supplies are managed and stock-outs avoided. Communities need to be made aware that treatment of acute malnutrition is free of charge. Ideally, outreach resources should be enhanced in order to improve treatment coverage. Local actors can be involved in the identification of malnourished children: traditional

healers can become part of the referral system and be provided with tools and knowledge to identify potential cases of acute malnutrition requiring care at health centers; community health worker skills can be strengthened so that they become the first people villagers contact when they fear their child is malnourished or more generally unhealthy.

- Child nutrition needs to be improved by promoting exclusive breastfeeding and raising awareness that it means no pre-lacteal feeds and no water. The role of grandmothers and mothers will be key in achieving this change of behaviour, and advising on breastfeeding can become part of the training and awareness provided to them.
- Early and abrupt weaning is sometimes motivated by the belief that a new fetus contaminates the mothers' milk. Although it is important to try to correct this false idea, it may be necessary to test different ways to reassure mothers. One possibility is to identify women who do not follow this practice and ask them to provide testimonials and show others the healthy outcomes.
- In order to improve the diversity and quality of young child feeding in the context of the barriers of poverty, the agriculture and livelihood activities of Harande and other partners in the area need to link up with the nutrition SBC efforts. The Harande livelihoods and nutrition teams should coordinate to assure maximum targeting of families with young children with livelihoods and gardening activities. Women should also be encouraged to reserve foods for home- and self-consumption to improve dietary quality and diversity. There also appears to be potential for the social marketing of *Misola* in these communities.
- Young child feeding practices were not explored deeply in the research, and there are likely many other dynamics that contribute to child undernutrition. It will be important for the Harande team to continue during project implementation to probe for more insight into the factors that help children, as much as possible, receive hygienic and enriched food in the right quantity

Improving Maternal Nutrition

- Nutrition of pregnant and lactating women can be improved, especially in terms of quality, by promoting intake of more nutritious food. It will be important to help women understand that an adequate quantity of food will not complicate the delivery but rather help ensure a healthier start for their infants. It helps that women recognize that their nutritional status also affects that of their children.
- Maternal nutrition will benefit from the same livelihood and food production activities foreseen to improve children's nutrition, including chicken breeding, kitchen gardening and learning techniques to better store and preserve seasonal products to make them available year round.
- Pregnant women cannot improve their dietary intake without the concurrence of elder women and husbands. Thus, the SBC strategy will also need to win the support of these decisive household members

Improving Hygiene and Sanitation

- Soap ownership can be more widespread, and if poverty is the obstacle faced by people to buy soap, Harande partner organizations might consider soap production businesses as part of other livelihood activities. It may be effective to 'market' handwashing with soap as something that makes people smell and feel good.
- The construction of simple hand washing stations should also be promoted, ideally following the 'tippy tap' model, which can be easily made at the household level.
- Harande partner organizations should conduct an assessment of latrine conditions to determine how many latrines are currently available and actually usable in every village. Poor maintenance is obviously a deterrent to use, and it seems it will be necessary to strengthen household or village maintenance efforts.
- More insight is also needed about boosters and barriers to latrine utilization, including where children are concerned. It seems open defecation is still common practice for many people; although the poor state of latrines is often to blame, more needs to be known about the habit of using latrines, including whether people feel at ease using them and are motivated to use and to encourage children to use them.

Utilization of media for health campaigning

- People do listen to the radio in the villages and mostly at specific times. Radio could thus be used to spread health messages. Harande will need to survey the availability of broadcasters to negotiate slots for scheduling Harande messages and work with them to craft interesting and compelling programs. Since radio listening takes place at approximately the same time of the day in every village, Harande partner organizations could consider creating a soap-opera-like program to illustrate and sensitize about health issues, which is broadcast in episodes that encourage people to follow.
- Since mobile phones are popular and connection is reliable in some parts of the target zone, it would be worthwhile for Harande partners to assess the potential of passing health messages using mobile technology. This technology can use push notifications to communicate relevant health information and reminders at no cost to the recipient, but also in a more participatory way where users can call a toll-free number for a 'customer care' service of pre-recorded messages on different health topics.
- Other channels, including *griots* and women's and youth groups are popular and could be involved and become key focal points to spread health and programming information in villages.

1 Background Information

1.1 The Harande project

The Harande project - *harande* means ‘food security’ in Peulh - is implemented in the region of Mopti, Mali by a consortium of six NGOs with CARE as the lead: The other members are Helen Keller International (HKI), Save the Children (SC), and three Malian NGOs responsible for implementing field activities: YA-G-TU (in English ‘Organization for Women’s Promotion’), Sahel-Eco and GRAT (in English ‘Research and Technical Applications Group’). The project has a duration of five years and its main goal is to provide sustainable food, nutrition and income security for 270,000 vulnerable household members spread out in 16 *communes* in four districts (*cercles*). The area includes the districts of Youwarou, Tenenkou, Bandiagara and Douentza. Harande will also target groups of transhumant pastoralists from the same area. Figure 1 shows the location of districts where the project is implemented.

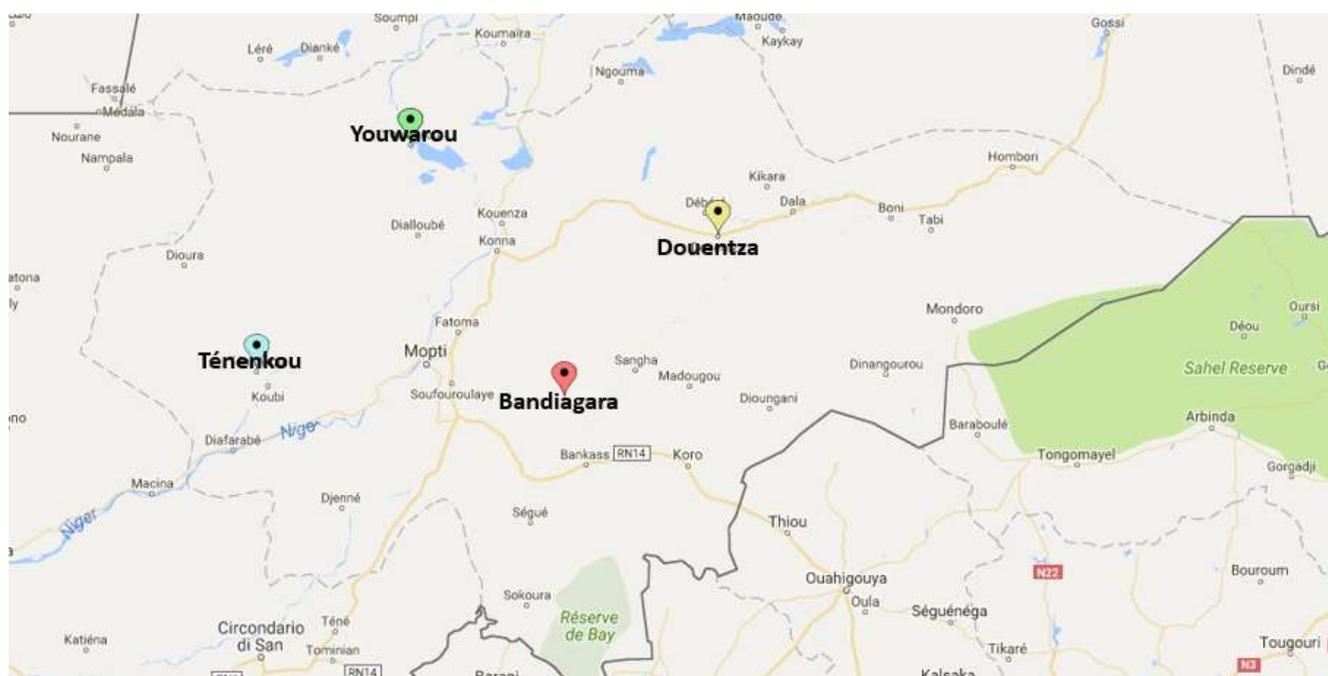


Figure 1: Location of four project districts

HARANDE has five major intersecting purposes, aiming to enhance human capital including nutrition, WASH, family planning, literacy and life skills and to foster diversified livelihoods. The project aims to increase resilience to climate change and shocks and the ability to prevent and mitigate conflicts. It also aims to improve participation in mechanisms supporting responsive government.

Project objectives and goals are described in Table 1.

Project Overall Goal
Sustainable food, nutrition and income security improved for 270,000 vulnerable household members in Youwarou, Tenenkou, Bandiagara and Douentza districts by 2020
Purpose 1
Human capital ensuring food, nutrition and livelihood security among 143,285 vulnerable participants in Youwarou, Tenenkou, Bandiagara and Douentza Districts strengthened.
Purpose 2
Livelihoods among 65,000 targeted participants (including 67% women and 41% youth) diversified and improved.
Purpose 3
Climate change resilience among 270,00 participants in targeted communities improved
Purpose 4
Conflicts limiting food, nutrition and income security within the 290 targeted communities prevented and mitigated
Purpose 5
Social accountability and governance enhancing food, nutrition and income security for the 270,000 targeted participants improved

Table 1: Harande goal and purposes

HKI will focus on Purpose 1 and promote progressive changes in nutrition, WASH and family planning practices using the Essential Nutrition Actions-Essential Hygiene Actions (ENA-EHA) framework.

1.2 Formative research purpose

Between July and August 2016 formative research was carried out as part of other inception studies planned for the first year of the project. The overall scope of the research was to gather evidence about current practices and identify appropriate strategies for achieving project outcomes. This formative research explored behaviors that are critical to achieving meaningful results under Purpose 1, focusing on improving the health and nutritional status of pregnant and lactating women as well as children and improving access to and utilization of WASH infrastructure. The research findings will be used to generate a robust Social and Behavior Communication Change Strategy (SBCC) focused on several key practices.

1.3 Theoretical framework for research and analysis

The research focused on behaviors related to nutrition, hygiene and reproductive health. These topics were selected since they have high priority within the framework of the Harande project due to their links to poor outcomes and also because they are interconnected; improving hygiene conditions and

sanitation can have important benefits for health (Bartram and Cairncross, 2010), and nutrition (Dangour, Watson et al., 2013). Furthermore, since it has been demonstrated that child stunting starts during pregnancy in a least 20% of cases (Stewart, Iannotti et al., 2013), it is key to ameliorate women's nutrition and the spacing and timing of births to improve natal outcomes (Dewey and Cohen, 2007). Evidence also shows the extent to which local diets might be inadequate to meet the nutritional needs of children under 2 years of age (Dewey and Vitta, 2013), therefore the research aimed to understand factors that influence food choices and what these choices are.

To assess practices related to nutrition and WASH, the research focused on triggers and barriers to the adoption of recommended health and hygiene behaviors and the mental models families have that influence health choices. The research tried to identify key influencers within families and villages who play a role in supporting positive behavior changes. More specific information on food availability and access was collected together with more in-depth analysis of participants' health seeking behaviors for malnutrition and family planning. Additionally, exposure to different types of media was investigated in order to understand which media are most utilized and might be used to influence behaviors.

2 Methodology

2.1 Data collection methods

To collect the information needed to address the research questions, several discussion topics were developed as articulated in the theoretical framework. These topics are presented in Table 2.

Discussion topics			
Nutrition	Maternal Health	WASH	Media Exposure
Perceptions of nutrition/malnutrition/child health	Nutrition for pregnant and lactating women	Handwashing and latrine ownership and utilization	Radio listening patterns
Child feeding practices and Misola knowledge	Family planning practices and values		
Food allocation decision making at household level			

Table 2: Discussion topics for data collection

The research process entailed two phases:

Phase 1: *Secondary data collection* which entailed reviewing relevant literature concerning similar studies and other key project documentation.

Phase 2: Primary data collection with a specific focus on qualitative data.

The primary data collection involved a mixture of qualitative and quantitative data. Semi-structured Key Informant Interviews (KIIs) were used to gather impressions and ideas from individual respondents – mostly health professionals, community volunteers and leaders - whereas participants were involved in Focus Group Discussions (FGDs). To collect quantitative information on WASH topics, spot-check observations at the household level were conducted.

KIIs and FGDs were held in the spoken local language and recorded and transcribed by the interviewers in French. Observations were digitally collected in the field using ONA, a mobile-phone based data collection application (ONA, 2016).

2.2 Investigation team composition and tasks distribution

The investigation was managed by a selected team which included a principal and a co-investigator. Figure 2 illustrates the team composition.

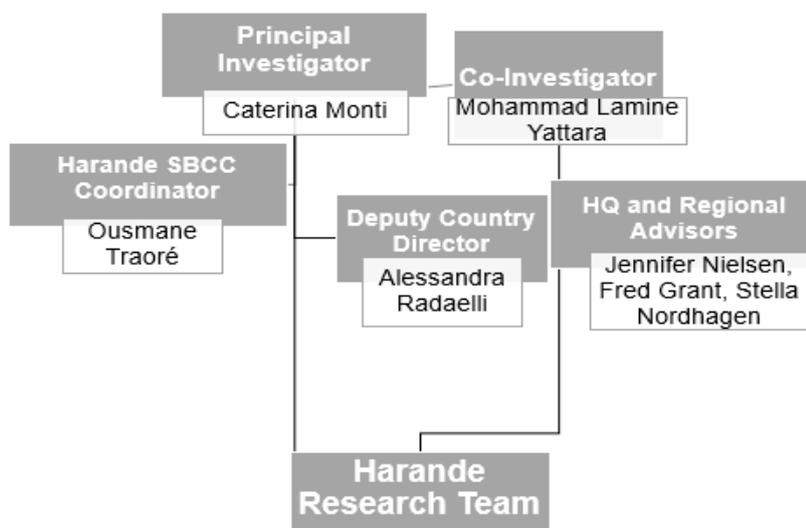


Figure 2: Research team composition

Field data collection was carried out by two teams, each comprised of three interviewers and one supervisor. The interviewers were recruited from among the Harande partner organizations and externally. They were fluent in at least one of the local languages. They were trained by the co-investigator and the principal investigator over four days to ensure they had a full understanding of the objectives of the research and to gain familiarity in interviewing and moderating discussions using the data collection tools developed for the research. Due to security constraints, the principal investigator was not allowed to personally supervise the field data collection except for a short pilot conducted in two more accessible locations; responsibility was thus handed over to the co-investigator. Supervision

and discussion of findings were conducted remotely through daily contacts and debriefing between the two either by phone or Skype.

The interview' team composition is depicted in Figure 3. Each of the teams' members had specific tasks assigned: taking notes, translating or moderating the discussion. The supervisor was responsible for assuring adherence to the research protocol by observing and providing corrective feedback as necessary to interviewers as they conducted the FGDs and KIIs.

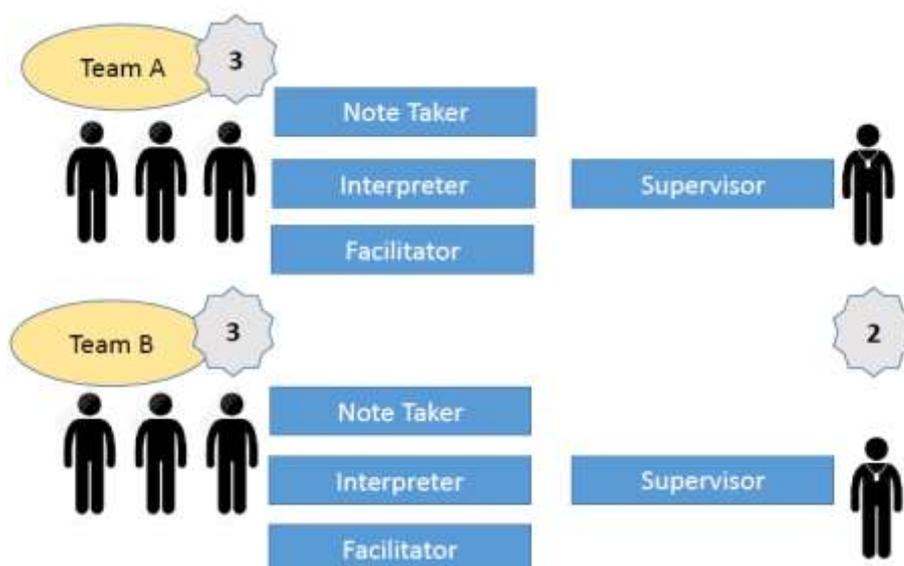


Figure 3: Teams composition

2.3 Ethical consent

The study protocol was submitted for approval to the Malian national ethical research committee which granted approval after its recommendations were addressed in a revised protocol and informed consent forms. In particular, the committee requested informed consent be requested in writing from the participants. Participants involved as subjects in any data collection activity were explained the purpose of the overall study and provided detailed information on the scope, type of informants and information sought through interviewing. They were also introduced to HKI, the other partner organizations and the Harande project. Participants were thoroughly informed about the benefits and the risks of participating in the discussions and the interviews: no risk was foreseen – except for the loss of work during the time spent in the discussions – while potential benefits could result from Harande team's better understanding of local beliefs and practices in nutrition and the resulting improved targeting and tailoring of Harande interventions.

Participants were informed that participation was considered voluntary and without any economic benefits although participants were thanked with bars of soap.

Participants were reassured that discussions and interviews would be held in a closed or secluded setting where only participants were allowed. Answers from participants were manually written and recorded with a voice recorder but no answers could be linked specifically to a given participant in the transcription or in the report. Participants were advised that information gathered would be treated confidentially and only analysed without specific references to respondents. Informants were provided a phone number of one member of the Harande team and one ethical committee member in case they needed any further clarification.

2.4 Selection of study villages and participants

As recommended for qualitative research, purposive sampling methods were used. Unfortunately, the *cercle* of Tenenkou had to be excluded from the research due to the high level of insecurity which could have affected the safety of field workers. Thus for this field research, three out of the four Harande-targeted *cercles* were selected. For each included *cercle*, five villages were included in the research. The selection of villages was based on assessment by Harande staff of their openness and acceptance of the Harande project. Accessibility in terms of road conditions during the rainy season but also security were two other important criteria considered for the village selection. Other characteristics for inclusion included medium-small size with population that was mixed in terms of both ethnicity and occupations in order to include different perspectives of different groups.

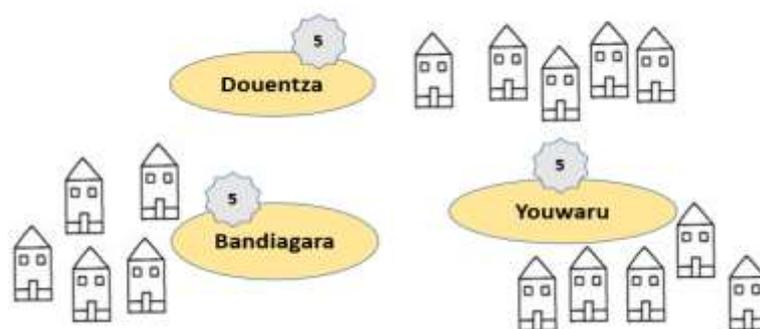


Figure 4: Villages sampled per district

The major ethnic groups investigated in the research were Dogon who are traditionally farmers and Peulh and Sonhraï who are herders. A smaller group – the Bozo – who mainly rely on fishing was also included. To avoid exacerbating potential ethnic divisions and conflicts within the communities, no reference to ethnicity was made in the discussions and the groups were always denoted by their professions, especially during field visits and data collection. The researchers also sought to include representatives of transhumant population but this proved to be largely unfeasible due to their migration patterns.

For the FGDs, informants invited to participate included pregnant and breastfeeding women of children under 2 years of age, fathers of children under the age of 2 and grandmothers of children under 2 years. For the KIIs, priority was given to religious and community leaders. Where available, community health volunteers and health staff from the local health post or local NGOs were interviewed. To explore local knowledge and marketing of Misola, a fortified flour, in addition to exploring knowledge in FGD, Misola producers were also sought in locations with a Misola production center; however, none were found.



Figure 5: Misola bag

2.5 Sample size and justification

2.5.1 Quantitative data

For the collection of quantitative data with spot-check observations, household was interpreted as people living in the same compound and eating from the same pot. Available demographic data on the villages (number of inhabitants) was analyzed in order to estimate the number of households in each village, using the assumption that the average household contained 9 members as indicated in the Mali 2012-2013 Demographic and Health Survey (DHS) report (CPS/SSDSPF, INSTAT et al., 2015).

In order to collect a representative sample of households from each designated location, 10% of households were selected using simple random sampling. The research team started from a convenient or central location in the village and interviewed households with a variable interval – every 3 or 4 houses – depending on the size of the community. No specific criterion was defined for the actual interviewee at the selected household as long as this person was an adult permanently resident in the compound.

2.5.2 Qualitative data

Each FGD had 6 to 10 informants – depending on group dynamics. In order not to overload participants, it was decided that discussion topics should be coupled according to their logical connection (see Table 3 for groupings). In total, for each village 6 FGDs were foreseen. Due to time constraints in many villages fewer discussions were realized.

Table 3 below shows informants, related topics and planned number of FGDs per village.

Pregnant and Lactating Women with children under 2 years	N. of FGDs
Perception of child nutrition/malnutrition/health + Children feeding practices and Misola knowledge	1
Nutrition for lactating and pregnant women + family planning practices and values	1
Handwashing with soap and latrine use	1
Fathers of children under 2 years	N. of FGDs
Perception of child nutrition/malnutrition/health + Family planning practices and values	1
Handwashing with soap and latrine use	1
Grandmothers of children under 2 years	N. of FGDs
Nutrition for lactating and pregnant women with focus on food allocation + children feeding practices and Misola knowledge	1
Total	6

Table 3: Focus group discussion by topic and participants type

The number of KIIs for each location depended on the availability of informants at the time of the visit; although community leaders were almost invariably there, health staff and/or community volunteers were not, especially where the health post was not in the village or in close vicinity. Annex 2 presents the number of FGDs, KIIs and observations conducted in each location.

2.6 Data analysis approach

The principal investigator and the co-investigator were responsible for the data cleaning, management and interpretation, with input from project staff, and were also responsible for storage and confidentiality of data.

The principal investigator took the lead in data analysis reviewing transcripts of discussions and interviews as well as daily data summaries prepared by the research team.

All qualitative data - FGDs and KIs – were manually encoded looking for trends and recurrent themes and ideas. The grounded theory approach was applied (Babbie, 2010). Quantitative data from spot-check observations was imported from ONA into Epi Info for descriptive analysis. Results for the analysis have presented with a CI of 95%.

2.7 Limitation and constraints of study methodology

A major limitation was the restriction of movement imposed by the current security situation in the Mopti region. Security was acceptable in only three of the four districts at the time of the research; in the selected districts, only villages accessible directly by road or by pirogue were considered for inclusion to protect the safety of interviewers. Selecting different villages with more difficult access and consequently with less exposure to NGOs and government led interventions on health and hygiene could have perhaps provided different insights on people's values and beliefs.

For the same reason, the principal investigator was only able to travel to two villages in Bandiagara. The supervision was thus handed over to the co-investigator. The principal investigator had no direct involvement in data collection or observation of the context.

Insecurity also affected logistics. The interviewer teams could not spend the night in the villages, and the time spent travelling each day shortened the time they could spend in the villages. As a result, they had to rush to manage the FGDs, and supervisors often ended up moderating discussions themselves instead of checking on quality of data. Time pressures also affected the quality of transcription, as there was less time available during the village visits to finish up the data collection and at night to review and compile data. This might have resulted in some answers from participants being poorly transcribed or overlooked during the evening review.

Another challenge was mobilizing participants. The study took place during the rainy season when farmers need to plant their crops and many were busy in the fields. Because for security reasons it was not possible to notify villages of the research teams' arrival in advance, informants had to be mobilized on the spot which took extra time every day.

Language barriers may have affected data quality. Three external interpreters were hired to translate into the three languages spoken in the area, namely Dogon, Peulh and Sonhrai. Each translator was fluent in one of these languages and had minimal understanding of one of the others. The initial plan was to conduct group discussions in Bambara (Mali's official language), with the translators stepping in only to support understanding of the more complicated concepts and to facilitate discussion. Unfortunately, in the Dogon villages of Bandiagara, Bambara was spoken only by a few men in each village, requiring the full attention of the one Dogon translator. The team without a Dogon speaker was forced to rely on translation provided by local Bambara speakers, who had not been trained in

interviewing techniques and were not familiar with the data collection tools. Furthermore, these local translators had an “emic” perspective (internal to the culture rather than as an observer) on the discussed issues, which may have biased the translation.

It was difficult for a number of interviewers to master the qualitative data collection approach. Despite the emphasis during the training that the data collection tools and the guiding questions that allowed for and, indeed, required flexibility as well as constant probing and cross-checking, many interviewers limited themselves to dutifully asking all the questions of all attendees. While these interviewers were able to collect many points of view on one topic, they were not able to ‘dig out’ more information or seize opportunities perhaps offered by informants to deviate from the script to pursue new, unexpected insights. Therefore, the requested data were collected, but the depth and the complexity of people’s perceptions and ideas are often lacking.

In debriefing, the interviewers pointed out that it can be difficult to dig out more information on practices that are considered ‘taboo’ or that people avoid talking openly about. Furthermore, interviewers stated they had the impression that villagers at times tended to steer the discussion towards what they needed or hoped to receive from the project rather than describing their practices.

The formative research was expected to investigate knowledge and practices of transhumant populations as well. Unfortunately, due to their unpredictable mobility, transhumant people were difficult to locate in the villages selected for the investigation. Only one group was identified, and its members were clearly not at ease speaking with the investigators. They released very limited information and stressed they needed to request permission from their leaders before consenting. This is understandable given the limited exposure these groups have had to NGOs and other outside organizations. The data collected from this group was therefore not included in the analysis since they were not considered sufficiently representative, but in general it appeared that the knowledge of nutrition-related matters and hygiene practices of this interviewed group was very low. This may be due to their limited access to health information, services and NGO interventions, but further investigation is needed. There is also very limited research on the health beliefs and practices of these groups.

3 Formative Research Findings

A total of 50 FGDs were carried out. Twenty involved pregnant or breastfeeding women, 15 involved fathers of children under the age of 2, and 15 were with grandmothers or other elder women. Community and/or religious leaders were interviewed in each village, and a total of 16 participated. Five community health volunteers and five health agents were interviewed by the research teams. Unfortunately, no Misola producers and no NGO representatives were located for interviews.

A total of 153 spot-check observations of hygiene and sanitation facilities were conducted at the household level, as shown in Annex 2. The majority of largest population belonged to the Dogon ethnic group (51%, n=78), followed by Peulh (14.5%, n=22). A small minority was represented by Bambara (11.8%, n=18) and a mix of other groups (22.8%, n=35), among these Sonhrai and Bozo.

3.1 Findings related to Reproductive Health

The formative research investigated several topics related to reproductive health, including preferred number of children, birth spacing and family planning. The advantages of birth spacing are well known in the public health community both in terms of the proper recovery of the mothers and perinatal and infant outcomes; the recommended spacing is at least 36 months between births (Rutstein, 2005).

When asked to specify the ideal number of children per family, most of women said that the ideal number falls between 4 and 8 live children. They expressed the belief couples cannot control how many children a woman should have since 'It's God decision' and a woman should accept all the children God decides to give her. In some villages, women disclosed feeling pressure from their husbands, who take pride in having many children. They may believe there is something wrong if their wives do not become pregnant quickly enough and so bring them to the traditional healer to ensure they have more children. In the Dogon villages, women also expressed the fear that if they do not have enough children, their husband will take another wife; to avoid this, they try to have as many children as possible.

Almost all women are aware that proper birth spacing will benefit the health of both the women and the children; the latter will not suffer from early weaning and will thus have better chances of being well nourished, not thin (*'maigre'*). They think that the ideal spacing is 2-3 years but some end up having a child every year.

In terms of the timing of the first pregnancy, in the majority of the villages visited, respondents reported that marriage happens when a girl is between 14 and 18 and this is due to social pressure. Both men and women said they thought a young girl would dishonor her family if she were to get pregnant before being married. Many respondents said they believed the practice of early marriage has increased in recent times since families believe youth now see 'shameful things' on their mobile phones and on television and they are encouraged to imitate them. As a woman from Dandoli commented:

'It's because of [exposure to] television and telephones that girls are having babies before age 18!'

In two villages, Synda and Madina, women stated that possibly all girls should be married well before they reach age 18. Some get married as early as 13/14 years of age and are expected to deliver their first child as soon as possible in order not to dishonor their husband. Women reported that if a girl waits

until she is 18 to have her first child, her girlfriends will already have children and she will be somehow 'left alone'. Thus peer pressure convinces girls to marry and begin childbearing at an early age.

Women reported being supportive of family planning and recognizing that the health of children and mothers can benefit greatly. They were able to name many different family planning methods, such as injections, pills, intra-uterine devices and implants like Jadelle, but they also admitted that their experience with using them is minimal. In Aka women were more informed, as the organization Marie Stopes International had been raising awareness there through video projections. Low family planning uptake has been reported for this area in previous studies; for instance in 2011 in Bandiagara only 11% of women were using any modern family planning method (Stephenson, 2011) and according to preliminary baseline findings only 6.1% of women in the Harande project zone are using modern contraceptives¹.

One of the main reported barriers to family planning is distance since many women live far from the health centers and health posts where they can receive injections or pills. Another major obstacle respondents reported is husbands' perception of family planning. Many husbands are in favor of large families and prefer women not to limit the number of children they have. Women claimed that only those men who have travelled abroad for work – such as to Cameroon or Ivory Coast – are open to contraception.

Another key point is the widely shared belief that no one should openly talk about birth control. In most women's opinion using contraception is fine but women should not discuss about the family planning methods they use. As one woman from Nando stated:

'If you use family planning [without being discreet about it] the whole village will talk about you and that is not good. The men will treat you like a prostitute because you can cheat on your husband without getting pregnant.'

In FGDs most women stated that they felt it was important to keep discussions private, within the family, but that in order to make family planning more accessible it is crucial to involve husbands. Women suggested they would welcome sensitization sessions on family planning for both men and women together in order to raise awareness and convince men to allow women to have the freedom to make decisions about their own health. They said they believe conducting 'plaidoyer', advocating for family planning rights for women with men, would decrease reticence about the use of contraception.

¹ Baseline Study of the Food for Peace Development Food Assistance Project in Mali (forthcoming), ICF 2016

According to men in FGD, their desired number of children ranges from 5 to 12, considerably higher than that proposed by women. Men feel that because they are the breadwinners, they are entitled to decide how many children to have. They also think that due to high infant mortality, it is advisable to have many children.

All men agreed that spacing between births is necessary and suggested 2 to 3 years. They were quite resolute that early marriages are necessary for girls to '*prévenir la délinquance juvénile*,' which means preventing pre-marital sexual relationships with young men in the village. In men's view, youth are adopting more loose customs due to the influence of big cities such as Bamako, Ouagadougou and Abidjan; they feel that girls should marry at a young age to prevent the shame they could cause to their family by getting pregnant before marriage.

In FGD men conceded they are not very experienced with family planning, and mentioned traditional family planning methods – such as amulets and herbal remedies from tree bark – as well as modern ones. A few men from Youwarou stressed the economic advantages of being able to limit the number of children in order to reduce expenses and lessen the pressure to provide for the family. As an informant from Madina reported:

'We heard on TV that [family planning] is a good thing, that it can reduce poverty, reduces the household size and avoids hunger in the family.'

They do not see many barriers to accessing family planning services, which according to them are available at every health center but they wish they could know more and also welcomed sensitization campaigns either for women alone or men and women together. According to the FGDs participants, it is mostly young men who practice family planning, the older ones are against it and are reluctant to acknowledge its advantages.

The reluctance of men to adopt family planning was stressed by community leaders and volunteers during the KIIs. They believe that religious misconceptions prevent people from accepting contraception, although many informants themselves asserted that in the Quran there is no clear prohibition of family planning, so those misconceptions have no real ground. Some informants reported that husband's mothers may play a role in these decisions as well, reinforcing husbands' opposition to family planning. They recommended raising awareness with these elder women as well as men.

3.2 Findings Related to Maternal Nutrition

Nutrition among pregnant and breastfeeding women is of interest not only for the health of the women but also given significant scientific evidence indicating that inadequate maternal dietary intake – especially of key micronutrients like iron, zinc, iodine and vitamin A– influences neonatal and perinatal

outcomes. Children of malnourished mothers often suffer from low birth weight or are born preterm, and this affects their future development (Abu-Saad and Fraser, 2010). An estimated 18% of newborns in Mali are low birthweight (UNICEF, 2014).

In Mali, a recent survey (CPS/SSDSPF, INSTAT et al., 2015) showed that 19% of girls aged between 15 and 19 suffer from high levels of chronic energy deficiency with low body mass index (<18.5 kg/m²) meaning that they are underweight and likely undernourished. This percentage is around 12% in the Harande project area.

Ideas about the type of food pregnant and lactating women actually eat or should eat were explored in the FGDs with pregnant/lactating women, mothers of children under 2, and other elder women and grandmothers. In Mali the role of elder women – especially the mothers-in-law, namely the husband's mother - is crucial in the process of sharing food and allocating it to different household members, influencing pregnant and lactating women's diets (White, Dynes et al., 2013).

The majority of mothers reported that they do not follow any specific diet while pregnant or lactating. In fact, their diet is very limited, and it mostly consists of '*boullie*', a millet-based porridge. They know that ideally they should eat more meat, fish, milk, eggs, pasta, fruits and green vegetables, but those foods are not easily accessible due to cost and the distance of the nearest market. All women indicated that with enough money, everything would be accessible. Some women reported some positive changes since they started home gardening, which allows them to harvest tomatoes, eggplants, carrots and onions, at least in the rainy season. Some reported having started small businesses – such as selling coal and firewood or fish trading - to increase their incomes and buy seasonings – such as sugar, oil and salt - and other flavorings.

Most women voiced that they follow advice from health staff on nutrition topics. They believe they should try to avoid salty or spicy foods and limit food intake at night, as all these actions are believed to affect delivery. Traditionally both pregnant and lactating women would not eat sour or leftover food since it might make the delivery more complicated and this tradition is still largely followed. No specific taboo foods were identified.

Mothers reported that pregnant women are advised by their families to eat very little to avoid having a big fetus and complicated delivery. They are often given '*dégué*,' a millet-based porridge made with milk, sugar and tamarind, and eat this 2 to 4 times a day. They also said that after delivery, families try to provide better food – such as meat – for at least three weeks to speed up recovery. Some mothers also reported that elderly women might suggest mothers add potash to their porridge for at least 10 days after delivery to 'clean the belly'. Informants who reported this added that this practice is no longer in use.

Breastfeeding women are advised to eat more to increase milk production; they often eat '*larrot*' a porridge made with millet, peanuts, fish, onions, tomatoes and tamarind.

Both mothers and elderly women reported that mothers-in-law (the husband's mother) manage the distribution of food among the family members. Everyone eats from a common plate, but food is pre-allocated and the mothers-in-law decide the order in which partakers should eat and the quantities each is entitled to. Men are served first since they are seen as the breadwinners and it is thanks to their effort that food is provided daily. Older women in the family eat second. Lastly, it is the turn of other women. Children either eat together with the elderly women or at a separate table. This applies especially in the villages in Douentza and Youwarou.

Community leaders and health volunteers further complemented these views and reported that the availability of nutritious food for pregnant and lactating mothers is limited in the villages. Some communities – such as those in Youwarou district – can only access markets by pirogue and this impacts food supply. In other villages, people often sell whatever more nutritious food they have to earn some money – e.g. husbands sell milk, eggs and chickens instead of reserving them for their wives to consume.

3.3 Findings related to Infant and Young Child Feeding and Caring Practices

The topic of child feeding and associations with malnutrition was explored in FGD and KII. All the informants were asked about their views of the causes of malnutrition, possible prevention methods, and to describe their health-seeking behavior regarding malnourished children. Informants were also requested to explain child feeding practices and their knowledge about and any consumption of Misola, an enriched type of flour.

In the FGDs, all pregnant and lactating mothers of children under 2 were able to clearly distinguish a healthy child from a malnourished one when shown a drawing of both. All of them observed that a healthy child '*runs faster*', '*his/her body shines*', '*is a pleasure to look at*'. A malnourished one instead '*is always sick*', '*looks sad*', '*is passive*', '*does not enjoy him/herself with other children*', '*cries often*', '*has a round belly*', '*has red hair*'. Most women reported that many children are like that in the village, in fact some indicated that it is majority of them. The causes for this condition are several in their opinion. They believe that the poor quality of breast milk can affect children's development, as can early weaning provoked by a subsequent pregnancy. Women explained that as soon as they discover they are pregnant, they stop breastfeeding believing that the milk becomes '*hot*' and can cause the child's death. They also relate child malnutrition to their own since they believe they are also malnourished. As a pregnant mother from Dandoli put it:

'I am not well-nourished; therefore, my child will also be malnourished.'

When they feel their child is malnourished, women feel threatened since they consider they do not have many options other than bringing the child to a traditional healer for some herbal remedies. Only after these treatments fail do they go to the health center. This is the second options because transport is expensive and also because they perceive the treatment prescribed by the health personal for underlying diseases, which is not free, can be costly and beyond their means.

Mothers know that malnutrition is a treatable condition and some try to attend to it by themselves by buying Plumpy Nut at the market or by adding milk to the usual porridge to make it more nutritious.

Having a healthy child is possible, most women reported, but they believe their own options are limited. Some women said they pay more attention to hygiene and offer children an herbal tea called 'gougouma' or 'thiade', believing it will contribute to their children's health. They feel that healthy children receive breast milk of better quality and have more food available. In some villages, respondents said that food for children is limited to 'boullie' and 'tô' (both millet-based porridges), sometimes enriched with peanuts or sugar. Rarer is the consumption of mashed potatoes and rice, and only if there some money available to purchase these food items. Women know that children should eat more nutritious food, and they named fish, eggs, bananas, karité butter and Cerealac, but they lack the means to regularly buy any of those. In Youwarou, women reported that they often feed their children fish since it is easily accessible when fishing is possible.



Figure 6: a FGD with mothers discussing children nutrition

Women recognized the crucial role that nutrition plays in children health as well in mothers' well-being. As a mother from Falembougou stated:

'Everyone loves a well-nourished child; he'll be healthy and his mother will be calm and happy.'

The majority of women in FGD reported that breastfeeding lasts usually from 6 months to one year rather than the recommended two years and beyond, while during the first six months it is usually not exclusive. Women provide children with herbal tea or water, but in spite of this they still believe they are exclusively breastfeeding their children. These practices have been reported widely in the area (Castle,

Yoder et al., 2001). In Douentza, mothers reported that babies are fed with a bottle (*biberon*) or given a 'sippy cup' if they are old enough to hold it. This is at times boiled and reused but often rinsed with water only and thus a likely source of contamination.



Figure 7: an example of sippy cup

Feeding happens when babies cry. Using a bottle for feeding allows mothers to work in the fields and leave infants in the care of mothers-in-law and grandmothers.

Mothers reported that they listen to the advice of these elder women. Men are usually not involved in child feeding and care at all. Solid food is given from one year of age. Once children are old enough to feed themselves, children are served

the food on a separate plate. Feeding usually happens 3 to 5 times per day.

Most women reported being familiar with Misola flour except those living in Youwarou. It is perceived to be a nutritious food which is given to children since it has many vitamins and prevents children from getting sick. Preparation is considered easy since one has to only add water. Some villages received Misola for free through distribution campaigns led by NGOs or the local health center, so they are now reluctant to pay, but they estimated that a price between 60 to 250 CFA per sachet would make the product affordable to them.

The majority of men were also familiar with the concept of malnutrition and were able to distinguish the image of the healthy child from that of the malnourished one. One man described the malnourished child as 'bird-looking' (*'il ressemble à un oiseau'*). They agreed with the women that malnutrition is a problem in their village and provided additional names for this condition: '*haigreu*' in Peulh and '*esemi kounga*' in Dogon. Men stated the causes of malnutrition lie in their poor ability to earn a livelihood. Their agricultural production is not sufficient to provide for the whole family, and food insecurity is widespread. Unfortunately, they felt that their production could not be improved due to a lack of water and high costs. Some also attributed children's malnutrition to mothers' 'negligence'; they said that if a mother does not rest or take care of herself while pregnant or breastfeeding, she can cause malnutrition in the babies. In fact, her workload might not give her much rest during pregnancy.

Most men know that malnutrition is a treatable condition, but many recommended addressing this issue by increasing awareness in the population through sensitization about family planning. Men also requested support from the local health center for detecting and treating malnourished children in the villages.

The majority of grandmothers and mothers-in-law confirmed most of the information conveyed by other informants, adding that when they perceive breast milk is not enough, they suggest mothers feed children cow or goat milk, date juice, light porridge or karité butter. Some grandmothers and mothers-in-law describe the custom of '*percer la gorge*' (literally 'to pierce the throat'). They give some liquid to newborn to 'open the throat' thus facilitating breastfeeding. They also reported that they occasionally give water to babies since they perceive they might be still thirsty despite drinking the breast milk. They also confirmed that their role in feeding children is key, especially when mothers are absent. In some villages in Douentza, some grandmothers said that they tend to give boys more food than girls when sharing food at meals.

This finding was somewhat corroborated by one health agent, who reported that more malnourished girls than boys are referred to the health center. Health staff is aware that families seek care for malnourished children from health centers only after traditional healing has failed, but they also admit that resources are often in short supply and that they struggle to attend to every patient.

3.4 Findings related to WASH

Evidence indicates that hand washing with soap can reduce the prevalence of diarrhea by an estimated 48%, that the proper disposal of excrement can decrease it by 36% (Cairncross, Hunt et al., 2010), and that the combination of different WASH interventions maximizes the impact. The interaction between malnutrition and infections - the most common being diarrheal diseases – and the vicious cycle they generate has long been understood (Scrimshaw, 2003).

Data collection related to hand washing practices gave specific focus to factors contributing to good practices, such as triggers, motivators and barriers. The research also looked at latrine use and ownership. FGDs and KII explored knowledge, attitudes and reported practices, and an observation checklist was used to assess the presence of soap, hand washing stations and latrines in a random selection of households within the same sampled villages.

The following table (Table 4) presents data collected from the observations of 153 households.

Observation	Yes	No	Total
Ownership of soap used specifically to wash hands	47.7% (n=73)	52.3% (n=80)	100% (n=153)
Presence of a hand washing stand	28.8% (n=44)	71.2% (n=109)	100% (n=153)
Ownership of a family latrine	53.6% (n=82)	46.4% (n=71)	100% (n=153)

Table 4: WASH spot-check observation findings

It appears that less than half of the households have soap specifically for handwashing (47.7%, n=73), and only about a quarter have a designated hand washing station (28.8%, n=44). Latrine ownership is more widespread, with 53.6% (n=82) of the households having one in the compound. Among the sampled villages, Koumbewol had the lowest soap ownership; only 31.6% (n=6) of the households had soap and the lowest latrine ownership at 0%. Villagers explained they do have some public latrines in the center of the village, but they find the location inconvenient as they can be observed using them, which is uncomfortable.

These data are comparable to the findings of the 2012-2013 DHS (CPS/SSDSPF, INSTAT et al., 2015); in the Mopti area only 21.6% of the households were found to have a dedicated place for handwashing and 29.4% of the households had water and soap or other hand washing material. According to the baseline survey for Harande, however, less than 2 percent of households had handwashing stations with soap.

Informants described WASH practices in the villages. The majority of both men and women claimed that they usually wash their hand at specific occasions: before eating, after using the toilet or cleaning children's feces, and upon returning from the fields. They also wash hands for their religious ablutions. The main motivating factor reported was avoiding diseases in order to decrease health expenses. As a man from Synda pointed out:

'Notre motivation de lavage des mains [est] la prévention des maladies [et] diminuer les dépenses.'

Hands are mostly washed with water only, but depending on the dirtiness or bad smell, people might decide to use soap or alternatively ashes. People tend to wash their hands with soap if the dirt is visible. The main obstacle to consistent handwashing is thought to be poverty, which prevents people from buying soap when they need to. Only in one village – Dandoli in Bandiagara – did informants mention the use of Tippy Taps which they built during the implementation of a NGO project. Informants reported that the hands of small children are washed before eating, after defecation and before going to bed.

Latrine use was reported to be inconsistent as well since people have different choices and preferences. The majority of respondents stated they will use latrines if they are available in their compound or in the neighbor's compound but only if the structures are in a good state. They asserted that using a neighbor's latrine is not considered shameful or impolite. Some latrines were built during previous WASH interventions and some villages, such as Pah, were granted 'open defecation free' status by the implementing NGO. While these villages are still considered ODF, observations by the data collection team indicate the need for more rigorous follow up post-certification to reinforce latrine use.

In many villages, such as Aka, latrines are available but lack maintenance, therefore people prefer open defecation. Open defecation is practiced also by adults when they are away from their homes working in the fields, and often by children. Preliminary baseline findings show that 41.2% of households in the Harande project area practice open defecation. Feces of small children are collected in pots and, where available, thrown in the latrines. In a few villages feces of children are dispersed in allocated places in the fields.

Community leaders and health volunteers tended to think that most people would wash their hands more consistently if some physical barriers could be overcome; namely, the lack of soap and scarcity of water in the dry season, which discourages people from 'wasting' it in hand washing. Key informants asserted that the use of soap is uncommon and that this can be attributed to a lack of knowledge by some community members. As a key informant from Pah pointed out:

'Some people do not use soap. This is due to poverty and lack of understanding of the benefits of handwashing with soap.'

Key informants reported that some villages have high levels of latrine ownership thanks to NGO programs that actually built latrines, but in many others where latrine construction was up to the initiative of the villagers, only some wealthier residents – such as the village head or the *iman* - built one.

3.5 Findings related to Media Exposure and Listening Practices

Media exposures and listening patterns of participants were investigated in order to assess the potential for spreading health messages and information via broadcasting in the area. Fathers and mothers of children under 2 and elderly women were all requested to express their preferences for radio listening and to describe channels through which information is disseminated in the communities.

In the FGDs, the majority of men reported that they listen to the radio early morning between 7am and 10am and at night, from 8pm to 10pm. Women listen to the radio mostly in the evening, between 7pm and 10pm. It seems that everyone in the village listens to the radio, but each group has specific

preferences. Youth listen to music, whereas adults prefer broadcasts about news, sports, health and hygiene, or agriculture and fishing educational programs with tips and suggestions.

For women it is important that the broadcasting is the local language, especially if they are not fluent in Bambara. Thus they prefer local radio stations such as Radio Douentza, Radio Youwarou, Radio Bandiagara, Radio Abba and Radio Mopti, which offer local news and broadcast in Dogon, Peulh and Sonhraï. Most respondents also reported listening to the national radio, ORTM, which offers broadcasting in many local languages in addition to Bambara, or to Radio Malitel and Orange Mali, which also have national programs.

Other means to spread information at the community level include the mobile phone network, which allows people to call and talk to other villagers in what participants called a '*bouche à oreille*' system. People also participate in local assemblies where the village head and other representatives – such as the head of the women's group - discuss and share information. Another traditional form of information sharing that is still important and was mentioned by the informants is the *griot*, a traditional musician and storyteller.

4 Discussion and Conclusions

The formative research did not highlight any substantial differences in health practices and knowledge among the different ethnic groups, but small local variances are identifiable especially in terms of access to health services and markets.

The role that elder women, especially the women's mothers-in-law, play in family life is dominant, particularly within the Peulh communities. They are responsible for food allocation at meals, advise on maternal health including family planning, and are in charge of infant and children feeding and care, especially when mothers are not at home. This will be an important area of focus for the SBC strategy, and it will be crucial to engage further with communities to understand how elder women's power can be harnessed for positive behavior change, like food allocation favoring household members in the first 1,000 days and attitudes towards healthy timing and spacing of pregnancy.

The prevailing idea among all women is that a pregnant woman should eat less to reduce the risk of a difficult delivery and the need for skilled health assistance from hospitals, which most families cannot afford. Meagre access to nutritious food due to poverty also contributes to a poor diet, although the occasional enrichment with peanuts, fish and milk where available shows that people do believe women should eat food of improved quality. Lactating women are in fact encouraged to eat more to increase milk production if the family can afford it. Elderly women once again have a say – especially strong in Peuhl communities – in what women are allowed to eat.

Marriage at an early age is still widespread, and it is encouraged by families to avoid shame of pregnancy before marriage as well as by peer pressure from fellow girls. In parents' opinion, it is the exposure to explicit content through cell phones and TV that has a negative influence on youth and encourages them to have sexual relationships before marriage. Parents also speculated that girls would feel excluded if they did not marry early and have children like other girls their age, since they would not belong to the same 'circle' and would not be able to join gatherings and social occasions reserved for married women. This assumption should be explored further with adolescents themselves to confirm that they feel this pressure and also what they believe might help overcome it. There is also evidence from other research in Africa that girls are married off early because they earn a higher bride price, especially where polygamy is practiced (Svedberg, 1990; Wamani, Åström et al., 2007). The Harande team should explore further with their communities to determine if and where this pressure is important in the target zones and how it can be broached.

Women and possibly even men would be in favor of child spacing but their experience with family planning is limited. It seems that theoretical demand is there: this is reflected in other studies that found only 10.7% of family planning needs are satisfied in the Mopti area (CPS/SSDSPF, INSTAT et al., 2015). The Harande team must now develop a strategy that makes this desire for the power to time and space pregnancies socially permissible.

The findings of the research suggest that effective family planning promotion will require four conditions. First, confidentiality should be ensured, meaning that counseling services only involve the wife and husband and discussions are not shared outside the couple. Second, family planning services should be made more accessible at the village level through female community health workers – assuming this mechanism can also assure confidentiality – since travel to the health center is not always possible and some women indicate they are reluctant to request family planning from male health agents. Third, both men and women need to be persuaded to want smaller families, to believe in the risk of early childbearing and to believe in the safety of long-lasting family planning methods. Fourth, Harande should promote counselling for the couple together and enable couples to communicate and negotiate contraceptive use.

Elsewhere, educational entertainment, such as television and radio dramas, have successfully influenced social norms around ideal family size (World Bank, 2015). Using such story-telling, men, who worry about the lack of means to sustain their families, could be shown the advantages of smaller families in terms of reducing pressure on agricultural production and food availability. In this way, especially if complemented by health information and access to services, the SBC strategy will also address the norms and mental models that lead women to fear that family planning will motivate husbands to seek another wife. A strategy must be developed to build acceptance for contraceptive

use by married adolescents so that they defer childbearing to age 20, and to reduce adults' fears of promiscuity among unmarried youth.

Malnutrition is a well-known condition in the villages and has many names. People are able to tell a malnourished child from a healthy one. Causes identified include the poor nutritional status of the mother, unhygienic living conditions, and poverty related to the meagre income generated by agriculture and other livelihood activities. Nutritious food options for both childbearing women and children are in fact limited. Once children are weaned, they eat the same limited diet as their parents. This important barrier must be taken into account in the SBCC strategy; more information and urging to eat healthier foods will not be effective. While nutrient-dense foods – such as eggs, chicken and fish – are potentially available, quantities are limited and prices often beyond the means of families, or home production is sold to make ends meet rather than consumed by the family. Kitchen gardening activities have been started by some organizations, and they seem to have contributed to expanding food variety, at least for fruits and vegetables in season. Women do know of Misola and would be ready to contribute to buying it, although in very small amounts given current market prices of the product.

Infants do not benefit from exclusive breastfeeding, as liquids of different kinds are provided from birth and the belief is widespread that breastmilk is not nutritious enough. Families need to understand – and believe – that while women deserve good nutrition, they can produce nutritious breastmilk whatever their diet. Mothers need to learn that nursing at least 10 times during the day and at night and emptying each breast will stimulate more breastmilk production – and that the solution to “insufficient milk” is more breastfeeding. (This will also require persuading other family members to help relieve mothers' work burden so that they have time for optimal breastfeeding.) Moreover, everyone must be persuaded that breastmilk satisfies the thirst of infants under six months of age. In light of the latest insights from SBC research that information alone may be necessary but is not sufficient to change beliefs and practices, Harande should think creatively to devise strategies that go beyond health education to provoke and motivate change.

The research did not uncover the extent to which the feeding of children 6-23 months is supervised by adults and how. This is crucial, since smaller children need help to ensure they get the right quantity and best possible quality of food. Certainly mothers and caretakers have a heavy workload, and it is time-consuming (and often messy) to prepare special recipes for young children and also to feed them and assure they are consuming enough. It would be interesting for the Harande team to explore further what measures mothers take to encourage their children to eat, including when they are sick or lack appetite, and whether caretakers are aware of the importance of ensuring young children eat enough and of making extra efforts on occasions when it is most challenging.

An issue that did emerge during the research is the apparent different nutritional treatment boys and girls receive. Respondents indicated that boys sometimes get preferential feeding and thus girls are more likely to become malnourished, while one health agent reported treating more girls for acute malnutrition. This needs to be confirmed, as it is contrary to DHS findings that rates of malnutrition are higher among boys. It should also be noted that the Harande baseline data indicate higher rates of stunting in girls but higher rates of wasting in boys. In some settings, boys are considered as potential breadwinners and therefore are given more and better food. Other research in Sub-Saharan Africa suggests girls are valued in the family as farm work helpers. Thus further investigation is needed to understand if and how girls and boys are fed or cared for differently.

Although acute malnutrition is often recognized, parents reported preferring to take their malnourished children to traditional healers first and only after traditional care is ineffective to the health center because they are worried about transport and healthcare costs. While there is no treatment cost for the treatment of acute malnutrition, there is a cost for treating underlying illnesses. Nevertheless, the costs of not treating illnesses is clearly much higher. Harande should help families understand the risks, while also identifying how to increase trust in the health system. Delayed referral can have an impact on treatment outcomes, both as a result of inappropriate treatment by traditional healers and because cases can quickly become more severe.

Hygiene knowledge appears to be good, but practices are still weak. It is likely that the population has gained knowledge through other recent WASH initiatives. However, soap is not commonly available for handwashing, thus hands are more often washed with water only. People report that hand washing is good to avoid diseases but also say that they are more likely to wash their hands with soap if their hands smell or have visible dirt on them, suggesting that appearance is a stronger trigger than the risk of disease. It may be useful to further explore the triggers and motivators for hand washing, as much research indicates that knowing the benefits of handwashing does not always translate into better handwashing practices. Effective strategies need to go beyond communicating information to find emotional drivers like the desire to be seen as a successful parent, disgust, desire to fit in with your social group, status and by building opportunities to create new habits (Biran, Schmidt et al., 2014)

One high-risk practice mentioned by many informants was the use of sippy cups and bottles (*'biberon'*) for infant feeding. Like bottles, these utensils are difficult to sterilize and thus very easily contaminated. Families see them as convenient to use when mothers are absent, while the dangers are likely not well known. Although cups and spoons are usually recommended instead (and recommended to feed expressed breastmilk, not substitute liquids), it may require more than information to persuade families to switch to a less convenient method.

The concept of dedicated hand washing stations is rather unknown in the research villages, but informants recognized the benefits of having available soap and running water, so it is likely that providing ideas for the construction and implementation of very simple stations would be welcome. Nevertheless, it would be prudent to test various models with techniques such as Trials of Improved Practices to find the most acceptable option.

Latrine ownership and maintenance may also need further investigation. Some people said they prefer to defecate in the open due to the poor state of some latrines – pits are full. Both men and women expressed dislike of shared latrines or those in open spaces where they can be easily observed using the facility. Although some communities indicated felt NGOs should pay for latrines for poorer families, it should be noted that experimental research has shown that Mali's community-led approach, in which households receive no subsidies for latrines but received intensive follow-up from government promoters, has been highly effective (Gertler, Shah et al., 2015).

Radio listening appears to be popular in the research villages and is considered a good method for receiving information. Listening is regular, in mornings and evenings. Due to language barriers, programs should be developed and broadcast in local languages; programs targeting women's groups are especially welcome. Although many different groups are active in the villages – such as youth groups, called '*GRAIN*', women's groups etc. – none of the informants mentioned these as an effective means to share and spread information. Informants suggested that all important information should go through the community leaders and possibly be shared in formal meetings or through direct communication with the leaders. Two means of communication that were cited as having strong potential were the traditional storyteller, or *griot*, who entertains villagers with stories and anecdotes, and mobile phones, which allow faster and broader communication, even with other villages.

4.1 Implications for Social and Behavior Change Strategy

4.1.1 General implications and recommendations

- This research confirms the power that elderly women have in influencing family decisions concerning nutrition of mothers and children, family planning and child care, although there was some variation in this power across ethnic groups. It is therefore pivotal to work with and through them to encourage the adoption of healthier practices. They can perhaps be organized into small groups, sensitized on health topics, and encouraged to lead the effort to reject unhealthy traditional practices such as pre-lacteal feeds, water for infants, and early marriage and to promote good practices within their families and peer groups. It will also be important to explore ways to motivate them to change traditional practices like food allocation and recommending water for infants less than six months of age.
- Other stakeholders will also need to be involved in this sensitization process. It has been noted that religious leaders might have quite conservative views, especially regarding family planning.

Harande should therefore recruit carefully to identify those well-informed imams who can reassure the population that the Koran accepts birth spacing and encourage them to sensitize other religious figures to support the adoption of healthier behaviors.

- The community mobilization component will also be crucial to a successful SBC strategy. In order to lay foundations for this process, the findings from this report as well as implications and recommendations for the implementation strategy should be shared with the communities that contributed to the research study. This should be a participatory exercise (*'restitution communautaire'*) that at least key stakeholders and a representative group of the villagers can attend. Increasingly it is accepted that "When communities are engaged in designing, carrying out, and monitoring communication programs, they are more likely to change and to maintain those changes than when programs are designed or imposed by outsiders." (Piotrow, Rimon et al., 2003).
- Harande project organizations should rely as much as possible on existing community groups to mobilize participants and avoiding creating competing or redundant groups. In the villages, youth and women's groups seem to be present. It is necessary to explore further their role and range of activities in the communities and assess whether these groups have some credibility among the people. If this is the case, they can be utilized and, if necessary, revitalized.
- All messages should be pretested with focus groups from target communities to confirm that they: 1) are understood correctly; 2) are motivating and memorable; and 3) take into consideration key barriers and facilitators. Only then should they be included in the SBC strategy.

4.1.2 Uptake of family planning and perceptions of reproductive health

- The research indicated a need to increase access to family planning services. Although Harande will not be directly involved on the supply side, it will be important to coordinate with local health services and other partners who are working on this topic.
- At the community level, local community health volunteers will need training on Essential Nutrition & Hygiene Actions as well as on how to counsel couples on contraceptive options, provide all options as permitted by the Malian government, and guarantee confidentiality. It may be worthwhile to explore whether training some female health volunteers to specialize in family planning can work to improve access while maintaining confidentiality; perhaps at a later phase when birth spacing is more widely accepted.
- Perceptions of family planning and the value placed on it need to be improved at the community level, and different layers of society must be involved: community leaders – especially religious leaders and elder women who have themselves been sensitized - should be involved in sensitization campaigns. Men who have traveled and returned with a more positive attitude towards family planning should be identified, and those willing should be recruited to be advocates among other men, perhaps through men's discussion groups (*Ecoles de Maris*)

promoting well-being of families and lessening the economic pressure that a large family places on limited livelihoods. A similar strategy can be used with men who might be reluctant to consider the well-being of women but who are sensitive to the idea of that their limited incomes cannot sustain big families.

- In order to change the custom of early marriage, social norms must evolve and peer pressure must be addressed. Since the Harande project plans to establish literacy programs, vocational training and enterprise groups for youth, these could become a platform for empowering girls and encouraging them to pursue income generation activities as a way to defer marriage or at least defer child bearing. Harande can strive to make the idea of getting married at an early age and having children somehow undesirable in this and future generations, and to provide girls with alternative choices. Successful local women may serve as positive role models and become involved as mentors in the training sessions.
- Since early marriages are also encouraged by families, it will be crucial to persuade parents of the risk of early pregnancies, which can end in maternal death. Stories of local girls whose pregnancy as teenagers had sad consequences can be used as examples, and their parents can be involved in spreading those stories to sensitize communities. The healthfulness of using contraception during marriage should become acceptable for teens as well as older women, although it is likely that different messages and strategies need to be developed for these two different groups.

4.1.3 *Improving child nutrition and care practices*

- Health-seeking behavior of mothers and care-takers appeared poor and directed first towards traditional healers. In order to improve outreach and reference of malnourished children and of sick children in general, several actions can be recommended for Harande. Firstly, an assessment of the quality of services provided at local health centers would be useful, including an examination of how patients are received and how supplies are managed and stock-outs avoided. Communities need to be made aware that treatment of acute malnutrition is free of charge. Ideally, outreach resources should be enhanced in order to improve treatment coverage. Local actors can be involved in the identification of malnourished children: traditional healers can become part of the referral system and be provided with tools and knowledge to identify potential cases of acute malnutrition requiring care at health centers; community health worker skills can be strengthened so that they become the first people villagers contact when they fear their child is malnourished or more generally unhealthy.
- Child nutrition needs to be improved by promoting exclusive breastfeeding and raising awareness that it means no pre-lacteal feeds and no water. The role of grandmothers and mothers will be key in achieving this change of behavior and advising on breastfeeding can become part of the training and awareness provided to them. Again, information alone is

probably not sufficient and needs to be complemented with approaches that motivate change and establishing new habits.

- In order to improve the diversity and quality of young child feeding in the context of the barriers of poverty, the agriculture and livelihood activities of Harande and other partners in the area need to link up with the nutrition SBC efforts. The Harande livelihoods and nutrition teams should coordinate to assure maximum targeting of families with young children with livelihoods and gardening activities. The plans of Harande to provide participants – especially women - with tools and seeds to start kitchen gardens or training to set up poultry production can help address obstacles of access in such households. They should also be encouraged to reserve foods for home- and self-consumption to improve dietary quality and diversity. The introduction of more nutritious foods should be accompanied with cooking demonstrations during which the nutritional values of food items can be explained and the most effective combination of nutritious food can be shown.
- Early and abrupt weaning is sometimes motivated by the belief that a new fetus contaminates the mothers' milk. Although it is important to try to correct this false idea, it may be necessary to test different ways to reassure mothers. One possibility is to identify women who do not follow this practice and ask them to provide testimonials and show others the healthy outcomes. They should also be involved in encouraging other women to stop this practice.
- Infant feeding practices were not explored deeply in the research, and there are likely many other dynamics that contribute to child undernutrition. It will be important for the Harande team to continue to probe for more insight into the factors that help children, as much as possible, receive hygienic and enriched food in the right quantity

4.1.4 Improving maternal nutrition

- Nutrition of pregnant and lactating women can be improved, especially in terms of quality, by promoting intake of more nutritious food. It will be important to help women understand that an adequate quantity of food will not complicate the delivery but rather help ensure a healthier start for their infants. It helps that women recognize that their nutritional status also affects that of their children.
- Maternal nutrition will benefit from the same livelihood and food production activities foreseen to improve children's nutrition, including chicken breeding, kitchen gardening and learning techniques to better store and preserve seasonal products to make them available year round.
- Pregnant women cannot improve their dietary intake without the concurrence of elder women and husbands. Thus the SBC strategy will also need to win the support of these decisive household members.

4.1.5 Improving hygiene and sanitation

- Soap ownership can be more widespread, and if poverty is the obstacle faced by people to buy soap, Harande partner organizations might consider soap production businesses as part of other livelihood activities. It may be effective to market handwashing with soap as something that makes people smell and feel good. Elsewhere it has been shown that the idea of being ‘tidy’ (rather than the actual prevention of disease) is one of the major motivators for people to wash hands. The link between unhygienic conditions and malnutrition of children can also be used, although it appears not to be a strong trigger.
- The construction of simple hand washing stations should also be promoted, ideally following the ‘tippy tap’ model, which can be easily made at the community level. If other models are being promoted in the area, it may be better to offer multiple options from which households can choose, or for a team from Harande to research and test further to determine the most practical and popular for this population. These also serve as visible reminders of occasions when handwashing is necessary.
- Harande partner organizations should conduct an assessment of latrine conditions to determine how many latrines are currently available and actually usable in every village. Poor maintenance is obviously a deterrent to use, and it seems it will be necessary to strengthen household or village maintenance efforts. Both construction flaws and poor materials have led to premature deterioration, and these should be rectified moving forward. Both the number of latrines and their quality need to be increased by the provision of family improved latrines which enhance sense of ownership and therefore the motivation for maintenance (WHO/UNICEF, 2000).
- More insight is also needed about boosters and barriers to latrine utilization, including where children are concerned. It seems open defecation is still common practice for many people; although the poor state of latrines is often to blame, more needs to be known about the habit of using latrines, including whether people feel at ease using them and are motivated to use and to encourage children to use them. The ‘open defecation free’ status granted to some villages needs to be reviewed. both to understand if communities value achieving this status and to assure that communities receive any support necessary to sustain ODF practices.

4.1.6 Utilization of media for health campaigning

- People do listen to the radio in the villages and mostly at specific times. Radio could thus be used to spread health messages. Harande will need to survey the availability of broadcasters to negotiate slots for scheduling Harande messages and work with them to craft interesting and compelling programs. Since radio listening takes place at approximately the same time of the day in every village, Harande partner organizations could consider creating a soap-opera-like program to illustrate and sensitize about health issues, which is broadcasted in episodes that encourage people to follow. There is suggestive evidence that this kind of “entertainment education” can promote changes in social norms, particularly around fertility (World Bank, 2015).

In the same program, there may also be a participatory segment where listeners have the chance to call in to receive further explanation on the subject and answer questions.

- Since mobile phones are popular and connection is reliable in some parts of the target zone, it would be worthwhile for Harande partners to assess the potential of passing health messages using mobile technology. This technology can use push notifications to communicate relevant health information and reminders at no cost to the recipient but also in a more participatory way where users can call a toll-free number for a 'customer care' service of pre-recorded messages on different health topics. Harande partners can make contact with local mobile service providers such as Malitel to explore possibilities to involve them in this activity, perhaps through their foundations.
- Other channels, including *griots* and women's and youth groups are popular and could be involved and become key focal points to spread health and programming information in villages.

5 Annexes to the Report

Annex 1: Scope of Work

Annex 2: Data Collection Overview

Annex 3: Data Collection Tools

5.1 Annex 1: Scope of Work

HARANDE Project – Mali 2015-2020

Assessment Study Scope of Work: Formative research for social & behavior change (SBC) in nutrition, reproductive health and WASH (Purpose 1)

Revision submitted Food for Peace: 16 March 2016

Organization Leading Assessment: Helen Keller International

HKI Primary Investigator: Harande SBCC Coordinator, *Ousmane Traoré*

Advisor: Senior Nutrition Advisor, HQ, *Jennifer Nielsen*

Funding source: USAID Food for Peace Office

Collaborators: CARE International

Introduction

USAID has awarded a grant to a consortium led by CARE Mali for a five-year integrated project to be implemented in the region of Mopti. The goal of the Harande program, which means 'food security' in Peulh, is sustainable food, nutrition and income security for 270,000 vulnerable household members in four target districts villages by a consortium of six members that also includes Helen Keller International (HKI), Save the Children (SC), and three Malian NGOs responsible for implementing field activities: YA-G-TU (Organization for Women's Promotion), Sahel-Eco and GRAT (Research and Technical Applications Group). HARANDE will target all the communities within 16 communes across the four districts, as well as the transhumant pastoralists who bring their herds to these communes during the months from January to May or from November to June.

HARANDE has five major intersecting purposes, aiming to enhance participating families': 1) human capital (comprised of nutrition, water, sanitation and hygiene [WASH], family planning, literacy and life skills); 2) diversified livelihoods; 3) resilience to climate change and shocks; 4) ability to prevent and mitigate conflicts; and 5) participation in responsive governmental mechanisms. Activities under the different purposes will be linked wherever possible. **This formative research inquiry will explore behaviors that are critical to achieving meaningful results under Purpose 1.** The relevant outcomes for this research include:

Sub-Purpose 1.1: Health and nutritional status of 47,718 Pregnant and Lactating Women (PLW) in targeted communities in Mopti improved

Intermediate Outcome 1.1.1: Knowledge and adoption of improved nutrition and health practices among 47,718 targeted PLW increased.

Intermediate Outcome 1.1.2: Production of nutrient-rich foods among 4,772 PLW improved and diversified.

Intermediate Outcome 1.1.3: Access to and utilization of essential health services among 71,497 WRA increased

Intermediate Outcome 1.1.4: Capacity of 139 health workers and 580 community relays to prevent, treat and promote maternal child health and nutrition improved

Intermediate Outcome 1.1.5: Knowledge, access and practices for water, sanitation and hygiene (WASH) among 120,900 targeted participants (including 60% WRA) improved

A central approach of the project for achieving results under Purpose 1 will be to promote progressive changes in **nutrition, WASH and family planning practices** using the Essential Nutrition Actions-Essential Hygiene Actions framework and the training and communications toolkit recently updated by JSI, HKI and CORE². Integral to this approach are techniques of negotiation for behavior change and facilitated group discussions to motivate and support caretakers and their families to adopt recommended practices. However, a social and behavior change (SBC) strategy must go beyond messages to address broader contextual factors that shape current practices, including social norms, values and environmental constraints. Recent research suggests that psychological, cognitive and even physiological factors may come into play³. **Identifying the strategies that will be most effective in achieving desired behavior change requires a deep understanding of all these contextual factors, and will be the objective of the formative research described in this scope of work.**

The formative research conducted under this consultancy is expected to complement a series of other inception studies that will be conducted by Harande during this first year, build on existing knowledge, and probe deeply to help the implementing team understand the reasons for current practices and identify appropriate strategies for achieving project outcomes. In particular, the gender analysis will investigate highly relevant topics and will need to be closely coordinated with this study. The SBC team will also draw on the considerable grey literature of partners on other ENA-EHA practices to inform the

² Available in English and French here: <http://www.coregroup.org/resources/488-essential-nutrition-actions-and-essential-hygiene-actions-framework>

³ World Bank (2015) World Development Report: *Mind, Society and Behavior*.

interpersonal counseling strategies used with Care Groups and other community associations to promote small doable actions at the household level.

I. Purpose of Study

The adoption of recommended health, hygiene and nutrition behaviors will contribute directly to the achievement of Purpose 1 and will also contribute to other purpose areas through various channels. To facilitate adoption of these key behaviors, the implementing team must understand the determinants⁴ of both current and new behaviors, and define the primary target group as well as key influencing groups for each. In the research approach, emphasis will be given to identifying and investigating **positive deviants**, or individuals or families that have found local solutions to common challenges while having access to the same limited resources. This is because such local solutions are more likely to be feasible and sustainable, and if shared more widely, expected to positively influence health and nutritional status.

The scope of work described herein will guide the work of an independent consultant (to serve as Primary Investigator) in **designing, conducting and interpreting findings from a formative research inquiry to inform a robust SBC strategy focused on 4 key practices**. It is well recognized that behavior change is difficult to achieve, and the most **successful strategies focus on just a few priority actions**. In addition, the qualitative research methods needed to provide a rich and textured understanding of the psychological, cognitive, social and environmental influences on human behaviors are both time- and labor-intensive, thus it is important to define a manageable scope.

Following data collection, the consultant will synthesize and analyze the findings in consultation with other members of the research team, and then facilitate a workshop with the Harande SBC team members to discuss the interpretations and think creatively about how to translate them into both messages and broader strategies that will motivate the adoption of the recommended practices. The Designing for Behavior Change framework is often very well suited to help guide the process of developing targeted SBC strategies and is frequently used in programs supported by USAID⁵. The Harande team also finds **Human-Centered Design**⁶ and **Behaviour-Centered Design**⁷ to be innovative approaches to understanding and influencing human behaviors and will seek a Primary Investigator with interest in these approaches. In developing the SBC strategy, the team will consider the best way to sequence the messages to avoid overload and confusion, as well as how to reach households at the appropriate time, or when the action is relevant to a member of the household. Following the workshop, the SBC team will revisit the project theory of change and identify if revisions are needed. Once available, the findings from the quantitative baseline survey will be reviewed by the SBC team for additional relevant input into the strategy.

The SBC strategy resulting from this consultancy will serve as guidance for the duration of the program; however implementation will likely be iterative and build on experiences, feedback and learning. The research may also identify additional areas for research or analysis that will be needed at a later point to strengthen program implementation. The SBC team will thus need to develop a monitoring plan to assess delivery to ensure it is proceeding as intended and is leading to desired behavior change, or to inform any necessary changes in approach.

⁴ Factors (psychological, cognitive, social, environmental) that are known to motivate or inhibit the adoption of behavior for a given population.

⁵ Food Security and Nutrition Network Social and Behavioral Change Task Force. 2013. *Designing for Behavior Change for Agriculture, Natural Resource Management, Health and Nutrition*. Washington, DC: Technical and Operational Performance Support (TOPS) Program.

⁶ "The [human-centered design] process is designed to ... learn directly from people, open ...up to a breadth of creative possibilities, and then zero in on what's most desirable, feasible, and viable for the people you're designing for." See www.ideo.org/tools

⁷ "Behaviour-Centred Design is a radically new approach to behaviour change for public health. Developed by a team at the Environmental Health Group of the London School of Hygiene and Tropical Medicine (LSHTM), it builds on evolutionary and environmental psychology as well as best marketing practice to design and test imaginative and provocative behaviour change interventions." See <http://ehg.lshtm.ac.uk/behavior-centred-design/>

II. Methodology:

In reviewing available data on nutrition, hygiene and reproductive health as well as the project logical framework, the **following behaviors have been identified as the highest priority for the Harande context** because of their especially low prevalence and alignment with the overall program strategy. The **rationale** for these choices is as follows. Because an estimated 20% of stunting begins in utero⁸, it is critical to improve the nutritional status of women, both via improved dietary quality and healthy timing and spacing and pregnancies. Because evidence suggest that local diets in impoverished settings may not be able to meet all the nutritional needs of children 6-23 months of age⁹, to improve young child feeding practices Harande will begin with a focus on promoting access to and demand for Misola, a locally-produced, micronutrient-fortified complementary food product. And because there is evidence that hygiene promotion can reduce diarrheal episodes in small children and thus associated impact on nutritional status, and the fourth behavior to be prioritized will be hand washing with soap, building on accomplishments of CARE's WASHPlus project to focus on the areas where further progress is needed.

1. Women of reproductive age increase their dietary diversity (≥ 5 of 10 food groups)
2. Children 6-23 months of age consume Misola in order to improve dietary quality¹⁰
3. Women of reproductive age use a modern contraceptive to delay first pregnancy until age 20 years and space births at least 36 months apart
4. Households wash hands with ash or soap at the critical occasions before preparing food and before eating or feeding a child.

In order to promote these specific practices, the research team will explore a number of broader related questions, including, *inter alia*:

- What factors will facilitate or hinder the adoption of new or improved behaviors being promoted in the areas of maternal, infant and young child nutrition, WASH, and contraceptive use?
 - What are the **mental models**¹¹ families have that shape choices about feeding, handwashing, and family planning, and how can these be positively reshaped?
 - In particular, what are families' aspirations for their children that could be drawn on to motivate the adoption of healthier practices?
 - What are small doable changes that can move families towards the ideal practices?
 - What are the existing positive behaviors around nutrition, WASH and birth spacing and how can these be reinforced among priority groups?
- Who are the **key influencers** of these behaviors? How can key influencers within the household – in particular, fathers and mothers-in-law – be motivated to support the adoption and maintenance of prioritized behaviors?
- What role can **community leaders**, both lay and religious, play in promoting a positive change in the targeted social norms?
- What key aspects of food availability/access (including local home gardening practices and intra-household allocation) affect nutrition practices?

⁸ Stewart, C. P., L. Iannotti, et al. (2013). "Contextualising complementary feeding in a broader framework for stunting prevention." *Matern Child Nutr* **9 Suppl 2**: 27-45.

⁹ Dewey KG & Vitta BS. (2013) *Alive & Thrive Technical Brief Issue 7, Strategies for ensuring adequate nutrient intake for infants and young children during the period of complementary feeding.*

¹⁰ The indicator will be at least one serving in the previous week. Harande intends to strengthen production capacity and quality assurance on the supply side, and promote purchase by the household where Misola is not received as a ration on the demand side.

¹¹ See WDR 2015 op cit. "When people think, they generally do not draw on concepts that they have invented themselves. Instead, they use concepts, categories, identities, prototypes, stereotypes, causal narratives, and worldviews drawn from their communities. These are all examples of mental models....some are useful... but others contribute to the intergenerational transmission of poverty." (p. 11)

- What factors could promote the acceptance of modern contraceptives in order to achieve optimal birth timing and spacing?
- What factors influence health seeking behaviors, specifically for reproductive and child health services?

Situational Analysis/Literature Review

The first step in this research will entail a review of all previous and current research relevant to the investigation (nutrition, WASH, birth timing and spacing). This literature will be collected in advance by the Harande SBC team. This review will identify relevant formative research studies as well as best practices of other programs that have addressed similar behaviors in this context. It will also include research from other contexts that may inspire innovative approaches, such as the SuperAmma¹² and SHINE¹³ projects. In parallel to this research review, the Harande SBD team will identify local resources and projects that can support and reinforce Harande's behavior change strategies.

Primary Qualitative Data Collection

In designing the research, the consultant will receive guidance from Jennifer Nielsen, PhD, Senior Nutrition Advisor at Helen Keller International (HKI) headquarters. In Mali the consultant will report to Ousmane Traore, the Harande/HKI SBCC Coordinator, who will identify a team of local enumerators to be trained by the lead consultant in the appropriate research methods (including a pretest of the instruments and of the skills of the enumerators). We refer to these staff as the Harande SBC Team. The local enumerator team may include members of the Harande field staff or independent contractors; the composition will depend on other research demands on the field staff at the time. We anticipate that there will be a local Co-Investigator to support data collection, quality control, and analysis.

HKI will seek a lead consultant who is familiar with the HCD and BCD approaches described earlier that acknowledge appeals to the rational brain must be complemented with appeals to motives and aspirations, attention to changing engrained habits, and ensuring people have the resources needed to act on recommendations and intentions. We expect that data analysis will be informed by a socio-ecological, Eco-Evo or similar framework that recognizes the **multiple levels of influences on individual behaviors**: cognitive and psychological framing; social norms and values; peer networks; environmental, economic and political constraints and opportunities.

The consultant will be responsible for defining, in consultation with HKI, the research instruments, sampling frame and approach to data analysis. Nevertheless, it is expected that the research will use primarily qualitative research methods as described below. For practical reasons, data will be collected in two target districts, and they have been grouped by similarities in ecological and cultural characteristics.

- **Focus group discussions** (FGD) or **group interviews** of community members using semi-structured interview guides to explore social norms that affect prioritized behaviors, barriers and motivators to positive behaviors, and the ability of influencing groups to support positive behaviors
- **Key informant interviews** (KIIs) conducted individually with project staff, health professionals and community leaders using semi-structured interview guides to gather detailed information on local traditions, probe how individuals feel about a certain topic, or gather reflections about community beliefs, norms and practices
- **Other methods** as appropriate (trials of improve practices, household observations, ranking, participatory mapping). Household observations are especially useful for understanding practices (and barriers to those practices) that tend to be incorrectly reported, such as handwashing. Participatory mapping can help understand social networks and risk factors in

¹² Biran, A., et al., *Effect of a behaviour-change intervention on handwashing with soap in India (SuperAmma): a cluster-randomised trial*. *Lancet Glob Health*, 2014. **2**(3): p. e145-54.

¹³ Desai, A., et al., *The SHINE Trial Infant Feeding Intervention: Pilot Study of Effects on Maternal Learning and Infant Diet Quality in Rural Zimbabwe*. *Clinical Infectious Diseases*, 2015. **61**(suppl 7): p. S710-S715.

communities. Trials of improved practices allow informants to try a new behavior for a few days and report on the actual obstacles and supports to success.

The data collection and analysis scheme described herein may be changed by the Primary Investigator in consultation with the Harande SBC team to align with that expert's school of thought. The data collection team will require at least one week of rigorous training in qualitative methods, including establishing trust, probing for detail and understanding of the respondents' point of view, and the flexible use of the interview guides. Likewise, close supervision and quality assurance of data collection will be necessary.

Study Population

Sampling for this component should be purposive; that is, subjects selected for their important knowledge and insights about the participant population, or residence in a range of livelihood and ecological zones, and/or probability of adding new information to what is already known. For practical reasons, the sampling will focus on the two major ethnic groups of the target zones: Dogon and Peulh, with additional sampling of transhumant populations. The final number of communities included and of subjects and interviews per commune will be determined by the consultant in consultation with HKI as sufficient to gain understanding of the knowledge, beliefs, practices and values influencing the target practices. The subjects will need to include those with sufficient understanding of transhumant populations to ensure that their practices, constraints and aspirations differ are explored as well. As necessary, questions will be adapted to the special circumstances of these groups.

Appendix 2 presents a list of illustrative questions for this data collection but the consultants are expected to design the appropriate interview guides.

Focus Group Discussions

The defining feature of the Focus Group Discussion (FGD) is the interactive discussion among members of a group that provides a deeper understanding of the issues at play. The FGD moderator facilitates the flow of discussion prompted by the interview guide and assures the participation of all members. This discussion can create debate among participants and an opportunity for new or unexpected thoughts and answers,¹⁴ and to provide insight into the poorly-understood "whys" surrounding hard to change behaviors. Furthermore, FGDs allow observation of how people interact in a group, which can add further understanding of social norms around the practices.¹⁵ In this setting, FGD will explore the beliefs and attitudes of fathers and grandmothers on key practices over which they have considerable influence.

Determining the number of FGDs to hold depends mostly on the issues to be examined. However, the minimum guideline is to conduct at least two groups for each variable considered to be relevant to the topic in order to confirm that information gained from a single group is not just impressions of an idiosyncratic group.¹⁶ Time and cost also are relevant issues, and the time available to investigate formative issues is limited. Thus the number of FGDs, which are time-consuming to analyze, needs to be kept to a minimum.

FGD will be conducted with the Harande participant population, recruiting 8-10 participants per group. In this study an estimated 14 FGDs are planned in two representative regions (Table 1). Appendix 2 includes an illustrative list of questions for discussion, from which the consultants selected for the research will select and adapt the most appropriate. FGDs will explore gender, power, and social norms that affect prioritized behaviors, barriers and motivators to positive behaviors, and influencing audiences' willingness and ability to support positive behaviors.

¹⁴ Acocella, I. (2012) "The focus groups in social research: advantages and disadvantages," *Quality and Quantity* 46: 1125-1136.

¹⁵ Debus, M. (1988) *Handbook for Excellence in Focus Group Research*, Washington, DC: Academy for Educational Development.

¹⁶ Morgan, D. (1999) *Focus Groups as Qualitative Research*. Portland: Sage Publications.

Table 1. Focus group discussion by topic, participant type, and region

Type of Participants / Key topic	Number of FGDs		
	Youw./Tenek. Peulh	Bandia./Douen. Dogon	Total
Pregnant and Lactating Women with children under 2 years			
• Knowledge of and willingness to purchase Misola for young child feeding	1	1	2
• Family planning practices and values	1	1	2
• Maternal nutrition and IYCF practices	1	1	2
• Handwashing with soap	1	1	2
Fathers of children under 2 years			
• Knowledge of and willingness to purchase Misola	1	1	2
• Family planning practices and values	1	1	2

Grandmothers and mothers-in-law of children under 2 years			
Key topic	Youw./Tenek. Peulh	Bandia./Douen. Dogon	Total
• HH decision making about food allocation	1	1	2
• Community norms around birth timing and spacing	1	1	2
Total	8	8	16

Data Analysis

Data analysis for FGD and KII will follow the same methodology and be iterative, with each source being examined for common themes, negative evidence and its resolution, and emerging understanding of what strategies will best guide, leverage or motivate positive behavior change.

After FGDs are complete and before a full transcription is done, the research team will review notes and look for emerging themes while assessing the quality of the data to ensure the level of investment for a full analysis is warranted. Once transcription is completed for all FGDs, analysis will be guided by both preset and emerging categories. Given the large number to be analyzed, the researchers will need to be judicious in how intensively they mine the data and

Data from the mothers', fathers', and grandmothers' FGDs will first be analyzed separately using thematic analysis. The primary investigators will read the transcripts to familiarize themselves with the data before annotations are made to devise initial codes. Coding may be manual or using an appropriate software such as Atlas-TI; as the coding frame emerges, text will be assigned to relevant sections of the transcripts, and revised as appropriate through the analytic process. Coding will directly relate to understanding behavioral drivers and points of interventions.

Themes will be sorted by importance to influencing behavior change, and illustrative quotes identified. The interpretation of the data will be shaped by: extensiveness and frequency of references to motivations or determinants discussed, intensity of beliefs or feelings about a particular practice or ideal, relationships between these themes, context (i.e. triggers of behaviors, habits or beliefs), and internal consistency (whether the ideas are indeed shared by most respondents or whether certain concepts expressed are associated). Using a tabulation matrix will facilitate interpretation and provide structure for summarizing the key findings.

In total, preliminary coding, coding, organization and interpretation will require approximately five days for the Primary Investigator and Co-Investigator to complete with support of the research team.

Key Informant Interviews

Key Informant Interviews (KIIs) involve conducting intensive, face-to-face individual interviews to gather detailed information on local traditions, understand how individuals feel about a certain topic, or gather reflections about community beliefs, norms and practices. KII use semi-structured interview guides but rely on probing and open-ended questions to gather information. KII producing deeper and richer information about why beliefs and attitudes are held, are a less threatening venue for discussing sensitive information, and pose a lower risk of responses being conditioned by peer pressure.

No specific formula exists for determining the number of interviews that “should” be conducted. Most qualitative studies strive for “saturation”, when additional data collection fails to provide new information.¹⁷ The definition of “saturation” is somewhat ambiguous, but one way of considering it is the point when no new themes emerge with additional data collection. Like FGD, data analysis is time consuming, so again the number needs to be limited. Nonetheless, in one study from Ghana and Nigeria¹⁸ that attempted to systematically define and measure saturation, the investigators demonstrated saturation for both countries with 12 interviews from one country (90% of all themes emerged by that point) with 73% of unique responses identified from the first six interviews from one country. In keeping with these findings **between six and twelve interviews** will be attempted for each topic.

In-depth interviews will be conducted with two types of individuals: a) positive deviant families from the Harande participant population, and b) individuals either influential among Harande participants (e.g., village leaders, religious leaders) or important to implementation (community health workers, agriculture extension agents, local NGO field workers). Topics will depend on the subjects being interviewed. KIIs with positive deviant family members (mothers, fathers and grandmothers in households with children under two years of age) and community leaders will focus on the values, beliefs and motivations that influence nutrition, hygiene and family planning practices. Interviews with informants with knowledge of contextual (social, economic, environmental) barriers and facilitators will probe these behavioral determinants. Table 2 provides an illustrative list of the interviews that are planned, although these may be revised by the consultants selected to design and conduct the research and by the research itself, as it unfolds. Appendix 2 presents illustrative questions for these interviews.

Data Analysis for Key Informant Interviews

At the end of each interview, the interviewer will prepare the 1-2 page interview summary sheet reducing information into manageable themes, issues, and recommendations. Each summary will provide information about the key informant’s position, reason for inclusion in the list of informants, main points made, implications of these observations, and any insights or ideas the interviewer had during the interview.

¹⁷ Creswell, J. (2013) *Qualitative inquiry and research design: choosing among five approaches*. Thousand Oakes, CA: Sage Publications.

¹⁸ Greg Guest, Arwen Bunce and Laura Johnson, “How Many Interviews are Enough? An Experiment with Data Saturation and Variability” *Field Methods* 18(2006):59-82.

Table 2: Key Informant Interviews by topic, participant type, and region

Type of Key Informant	Number of KII		
	Youw./Tenenk. Peulh	Bandia./Douen. Dogon	Total
Positive deviant mothers	2	2	4
Health or NGO agents with subject matter expertise	2	2	4
Misola producers	2	2	4
Health or NGO agents with subject matter expertise	2	2	4
Community leaders (religious, agricultural)	2	2	4
Health or NGO agents with subject matter expertise	2	2	4
Community leaders/thought leaders	2	2	4
Total	14	14	28

After KIIs are complete and before a full transcription is done, the research team will review notes and look for emerging themes while assessing the quality of the data to ensure the level of investment for a full analysis is warranted. Once transcription is completed for all KIIs, analysis will be guided by both preset and emerging categories. Analysis will begin with the Primary Investigator and Co-Investigator reading and re-reading the transcripts to familiarize themselves with the data before annotations are made to devise initial codes. Descriptive codes will cover key themes, concepts, questions, or ideas, such as motivations or aspirations, social norms, and roles of the target and influencing audiences in decisions about the targeted behaviors.

As the coding frame emerges, codes will be assigned to relevant sections of the transcripts, either manually or with the help of an appropriate software such as AtlasTI. As new themes emerge, text reassigned to different or new codes as appropriate. The codes will then be examined to identify themes, subthemes, patterns, and relationships. Themes will be sorted by importance to influencing behavior change, and illustrative quotes identified. The interpretation of the data will be shaped by: extensiveness and frequency of references to motivations or determinants discussed, intensity of beliefs or feelings about a particular practice or ideal, relationships between these themes, context (i.e. triggers of behaviors, habits or beliefs), and internal consistency (whether the ideas are indeed shared by most respondents or whether certain concepts expressed are associated). Using a tabulation matrix will facilitate interpretation and provide structure for summarizing the key findings.

The Co-Investigators will consult as needed with the SBCC Coordinator and the rest of the research team in their interpretations, and will also check for negative evidence, or evidence that questions preliminary findings. In total, preliminary coding, coding, organization and interpretation will require approximately five to complete.

Data Management

The Consultant and local co-investigator will be responsible for monitoring the quality of data collection, but will be supported in this effort by the Harande SBCC Coordinator. Security permitting, all will travel to the sites where data are being collected and directly supervise the enumerators on a daily basis. Quality reviews will include ensuring recordings are audible and notes legible and comprehensible; probing and discoveries of new ideas are made and highlighted; and enumerators are debriefing each evening. If security concerns constrain travel of some researchers, others will be assigned the supervision responsibilities.

All information will be handled confidentially and no personal identifiers will be collected. All data transfers between the investigators will be done through password protected files. Only interviewers, the SBCC Coordinator, and Co-Investigators will have direct access to raw data. **Ethical approval** will be obtained from the Mali Ministry of Health before proceeding with data collection. All subjects will be told about the all known and potential risks and discomforts of participating in the interviews/discussions

and asked to give their oral or written consent before proceeding. No one will be coerced into participating.

Dissemination of results

Following the workshop to review and translate findings into a multifaceted SBC strategy, the Harande team will share the strategy orally and via a written report with the wider Harande project team, the Mopti government steering committee, and relevant local partners. Findings will also be shared with participating communities via a community meeting.

III. Study Personnel

The lead consultant (Primary Investigator) to design and guide the research and analysis will be recruited via international full and open competition, with advertisements in industry sites including DevEx, FSNNetwork, CORE Group and Relief Web. The consultant will be expected to have a masters or doctoral degree in a relevant field and to have at least 10 years' relevant experience in formative research and/or social and behavior change. A second researcher (Co-Investigator) will be recruited locally and should also have a relevant advanced degree and field research experience with qualitative methods.

Enumerators will be expected to have 3 year post-secondary education. We anticipate a team of 10 data collectors and two supervisors.

The specific responsibilities of each team member are as follows:

Lead Consultant (Principal Investigator; TBD)

- Review relevant literature and draw lessons learned
- Review information from other inception research to incorporate relevant findings and ensure sharing from SBC fieldwork
- Draft all tools and facilitate pre-testing
- Develop sampling plan in consultation with SBC team
- Lead training of enumerators in qualitative research methods and use of instruments
- Oversee data collection and ensure quality control and data management
- Analyze qualitative data in consultation with enumerators and draft synthesis report
- Facilitate workshop with Harande SBC team and enumerators to validate findings
- Also at this workshop, lead SBC team in translation of findings into actionable SBC strategic plan (identifying priority groups, influencing groups, key determinants, and activities]
- Draft final report summarizing key findings and ensuing SBC strategy

Co- Investigator (TBD)

- Review relevant literature and draw lessons learned
- Review information from other inception research to incorporate relevant findings and ensure sharing from SBC fieldwork
- Review and critique all tools and facilitate pre-testing
- Contribute to sampling plan
- Coordinate with Harande SBCC Coordinator to assure logistics for field deployment
- Supervise data collection
- Support PI with data analysis
- Co-facilitate workshop to validate findings and develop SBC plan
- Contribute to final report summarizing findings and strategy.

Harande SBCC Coordinator (Ousmane Traoré)

- Review relevant literature contribute insights on lessons learned to PIs and SBC team
- Coordinate this research plan with other inception research to avoid duplication and share relevant findings
- Review and critique all data collection tools and support pretesting
- Assure recruitment of qualified enumerators (project or external)
- Plan logistics for data collection
- Supervise data collection and assure quality
- Review and critique data analysis prior to SBC team workshop

- Participate in SBC workshop, contribute to strategy development and encourage participation and contributions of other team members
- Review final report by PIs
- Assure execution of SBC strategy

Harande SBC Team (membership TBD but including staff of all consortium members)

- As possible, serve as enumerators in qualitative data collection
- Participate actively in workshop to validate findings and develop SBC strategy
- Actively seek information from other inception research to ensure relevant findings and insights are shared across project purposes
- Work with Senior Nutrition Advisor and Harande M&E team to develop monitoring plan

Senior Nutrition Advisor (Jennifer Nielsen)

- Review and critique research design, data collection instruments, sampling plan, training plan and supervision plan
- Review and critique preliminary report of findings
- Review and critique SBC strategic plan
- Advise on the monitoring plan

Deputy Country Director (Alessandra Radaelli)

- Oversee logistics plan to assure smooth implementation
- Negotiate for Harande field staff to be available for data collection
- Review and provide comments on preliminary report of findings
- Review and provide comments on SBC strategic plan

IV. Timeline

The implementing partners estimate the research could begin in April 2016 and conclude mid-May 2016 (estimated 40 days altogether). An illustrative calendar is below. Field work assumes a 6-day work week.

Dates	Location	Days	Task	Deliverables	Notes
Preparation Phase by Harande Team					
Mar-May	Bamako		<ul style="list-style-type: none"> Collect and review relevant literature Prepare sampling frame for review/approval by PIs Plan logistics for training and data collection Communicate with Ministry of Health to ensure permissions and expedited ethics review 	<ul style="list-style-type: none"> Library of relevant research on practices/SBC efforts in nutrition, WASH and family planning Village lists and proposed research sites identified 	
Consultant support					
6/20-24	Bamako	5	<ul style="list-style-type: none"> Review relevant literature Develop draft data collection instruments (KII, FGD) Develop sampling frame Review instruments with Harande team members Develop research protocol 	<ul style="list-style-type: none"> Identification of information gaps and research needs Sampling frame Research instruments for field testing Research protocol 	Representatives of Harande's nutrition and human capacity teams will support consultant as needed throughout this week, for instrument development and sampling frame and logistics planning.
6/26-7/1	Bamako or Sevaré	6	<ul style="list-style-type: none"> Train enumerators & supervisors in use of data instruments (semi-structured interview guides, probing, facilitating group discussions, 24-hour recall) and quality control procedures Pre-test instruments and revise as needed Provide feedback and guidance to enumerators 	<ul style="list-style-type: none"> Finalized data instruments Trained enumerator teams and supervisors 	Schedule assumes 6-day work week. Harande will provide field agents or help identify qualified external staff for data collection. Harande will also plan and supply transport for field work. If necessary, additional days for testing instruments could be taken from data collection days
7/2-19	Youwarou Tenenkou	15	<ul style="list-style-type: none"> Data collection in communes/districts per sampling frame Supervision for data quality and daily 	<ul style="list-style-type: none"> Transcripts of textual data 	Schedule assumes 6-day work week. Harande staff will advise if data collection must reach all districts or purposively include

	Bandiagara Douentza		review of data collected		key cultural or geographic groups.
7/20-30	Bamako or Sevare	10	<ul style="list-style-type: none"> Consultant the core team to review and analyze textual data 	<ul style="list-style-type: none"> Preliminary report of key findings, key insights, key motivations and aspirations and barriers to recommended practices; social & environmental influences, challenges 	Supervisors and enumerators will support consultants with data analysis, together with HKI SBCC advisor
8/1-3	Sevare	3	<ul style="list-style-type: none"> Organize and facilitate workshop to review and validate findings and prioritize themes (practices, values, barriers and aspirations) to address in SBC strategy 	<ul style="list-style-type: none"> For each practice the key audiences, influencers, determinants (facilitating factors, aspirations, barriers) and strategies identified 	Appropriate members of Harande field team should participate in this workshop
8/4-5	Sevare or Bamako	2	<ul style="list-style-type: none"> Finalize report on research findings and implications for SBC strategy 	<ul style="list-style-type: none"> Report 	

A suggested outline for the research report and recommendations is attached as **Appendix 3**.

Appendix 1: Summary of HARANDE Logical Framework

Program Objective	Key indicators and targets
Goal: Sustainable Food, Nutrition and Income Security Improved for 270,000 Vulnerable Household Members in Youwarou, Tenenkou, Bandiagara and Douentza Districts by 2020	Prevalence of underweight children under five years of age (12 percent point reduction)
	Prevalence of Poverty: Percent of people living on less than \$1.25/day(20 percent point reduction)
	Depth of Poverty: The mean percent shortfall relative to the \$1.25 poverty line (16 percent point reduction)
Purpose 1: Human Capital Ensuring Food, Nutrition, and Livelihood Security Among 143,285 Vulnerable Participants (including 71,497 WRA and 5,958 CU2) in Youwarou, Tenenkou, Bandiagara and Douentza Districts Strengthened	Prevalence of stunted children under five years of age (10 percent point reduction)
<u>Sub-Purpose 1.1:</u> Health and nutrition status of 47,718 Pregnant and Lactating Women (PLW) in targeted communities in Mopti improved (including improved practice of essential nutrition & hygiene actions; strengthened capacity of health and community workers; practice of diversified homestead food production; access to micronutrient-fortified Misola flour)	
Improved access to and use of clean water sources, water treatment and latrines (WASH facilities)	
Purpose 2: Livelihoods Among 65000 Targeted Participants (including 67% women and 41% youth) Diversified and Improved	Daily per capita expenditures (as a proxy for income) in USG-assisted areas(50 percent point increase)
<u>Sub-Purpose 2.1:</u> Market-based agricultural livelihoods among 64,000 targeted participants (including 60% women and 20% youth) improved and expanded	
<u>Sub-Purpose 2.2:</u> Non-farm livelihoods among 4,500 youth (45% female) improved	
<u>Sub-Purpose 2.3:</u> Access to suitable financial services for 33,460 targeted participants including 65% women and 15% youth) increased	
Purpose 3: Climate Change Resilience among 270,000 Participants in Targeted Communities Improved	Prevalence of households with moderate or severe hunger (Household Hunger Scale - HHS) (40 percent point reduction)
	Average Household Dietary Diversity Score (HDDS) (3.5 point score increase)
<u>Sub-Purpose 3.1:</u> Short-term farming and livelihood decisions of 18,750 targeted farmers (including 30% women and 50% youth) accessing accurate climate information improved	
<u>Sub Purpose 3.2:</u> Climate change resilience of participants in the 16 communes implementing climate change adaptation plans increased.	
Purpose 4: Conflicts Limiting Food, Nutrition and Income Security within the 290 Targeted Communities Prevented and Mitigated	Prevalence of perceived natural resource-based conflict in target communities (30 percent point reduction)
<u>Sub-Purpose 4.1:</u> Negative impacts of conflicts within the 290 targeted communities reduced.	
<u>Sub-Purpose 4.2:</u> Gender-based violence in all 290 communities reduced and mitigated	
Purpose 5: Social Accountability and Governance Enhancing Food, Nutrition and Income Security for the 270,000 Targeted Participants Improved	Percent of food, nutrition, and income security service providers with high score on citizen satisfaction index (30 percent point increase)
<u>Sub-Purpose 5.1</u> Access to and utilization of public services essential to food, nutrition and income security among the 270,000 targeted participants improved	
<u>Sub-Purpose 5.2:</u> Incorporation of transparency, accountability and inclusive participation into structures and processes involving 270,000 participants ensured.	

Appendix 2: Illustrative Interview Questions

Perceptions of malnutrition and health in children

1. How would you describe a malnourished child?
2. What do you think are the causes of [these different kinds of] malnutrition?
3. Do you consider malnutrition to be an important problem in your community (compared to other health issues)?
4. What do you think can prevent malnutrition in children?
5. How do you describe the ideal healthy child?
6. What characteristics do you want your child to have (free from illness, strong energetic, happy, obedient, smart in school.....)
7. What do think is needed to make sure your child has these qualities?
8. What foods would you prefer to give your child, and why?
9. What foods do you think are most nutritious, and why?
- 1.

Nutrition of Women [pile sorts may be useful for probing dietary diversity]

1. Do pregnant women eat differently than non-pregnant women? How and why is their diet different?
2. Do breastfeeding women (with children <12 months) eat differently than other women? How and why is their diet different?
3. What foods do pregnant and breastfeeding women prefer to eat, and why?
4. How do you decide how many different foods to eat each day? How many different foods would you like to eat? Which foods are preferred?
5. Who in the household decides what pregnant and breastfeeding women eat?
6. Is your family able to access preferred foods in sufficient amounts? If not, what are the challenges and what solutions do you use?
7. Is food shared in the household according to certain rules? (e.g., women eat first, children eat first, elders receive preference, etc.)? What are these rules and why are they enforced?
8. Health workers recommend that pregnant and lactating women consume extra food, especially iron-rich animal foods (red and organ meats) and between 5-10 different foods every day. What would make this advice difficult or easier to follow?
9. Do women drink goat milk? Eat eggs? Eat animal meats? Any insects or wild foods? If not, why not?

Feeding practices for children 6-23 months of age

1. In your community and household, whose advice about the best way to feed a child [6-23 months of age] is most respected? What do these people recommend?
2. Are there differences in what boys and girls eat in your community¹⁹? If so, why?
3. Health workers recommend feeding children at least 4 different foods every day, including fruits and vegetables and, as often as possible, animal foods like milk or eggs or liver. What would make this advice difficult or easier to follow?
4. What other factors influence what complimentary foods are fed to children? [If not mentioned, probe for time/labor burden, cost, lack of availability, beliefs about nutrition]
5. Have families in this community heard about or seen Misola, a packaged enriched flour for young children? Does anyone feed their children Misola? Why or why not? [Probe to understand attitudes towards the product, what purchase price might be feasible and where the product should be made available.]

Water, Sanitation and Hygiene (important to complement with observations of facilities)

1. When do you usually wash your hands during the day?

¹⁹ According to the 2010 MICS, the 2012-13 DHS and the 2015 SMART, all types of malnutrition are higher among boys <5 y than among girls, particularly in Mopti.

2. What pushes you to wash your hands? (Probe to explore if motives include, *inter alia*: disgust, smell, key people who influence, desire to be good caretaker, prevention of illness, habit, expectation)
3. What pushes you to not wash your hands? (Probe to explore if motives include, *inter alia*: not seen as necessary, insufficient water or cleansing agent, not a habit, not an expectation, not easy)
4. What are your thoughts on washing your baby's hands? (when? why?)

Family Planning and Healthy Timing and Spacing of Pregnancy

1. Who in the household influences decisions about when to have children and how many children to have? Who outside the household influences these choices?
2. Health workers recommend that to protect a woman's health and allow her to finish growing, couples wait until the wife is 20 years old to have the first pregnancy? What do you think of this advice? Who in the household would need to approve of this advice? What would make it easier or harder to follow?
3. Health workers also recommend to protect the health of the mother and her small children that couples wait until each child is at least 2 years old before trying to have another child/pregnancy. Who in the household would need to approve of this advice? What would make it easier or harder to follow?
4. What contraceptive options are available to you and from where can they be obtained? How easy/hard is it? What influences decisions to look for family planning options?
5. What is your opinion of these options and of using contraception?
6. What would make family planning easier or more desirable?

Media Exposure

1. Do people in your community listen to the radio?
2. Who listens: men, women, adolescent boys, adolescent girls?
3. What times are most popular or convenient for listening for each?
4. What kinds of radio programs do you enjoy, and why?
5. What other networks are influential in this community (peer groups, savings groups) that could help spread the word about healthy actions?

5.2 Annex 2: Data Collection Overview

District	Village	N. of observations	N. of FGDs with mothers	N. of FGDs with fathers	N. of FGDs with grandmothers	N. of KIlls with leaders	N. of KIlls with comm. volunteers	N. of KIlls with health staff/ NGO	N. of KIlls with Misola producers
Bandiagara	Dandoli	8	2	1	1	1	1	0	0
Bandiagara	Sincarma	9	1	1	1	0	0	0	0
Bandiagara	Nando	15	1	1	1	2	0	0	0
Bandiagara	Pah	10	1	1	1	1	1	0	0
Bandiagara	Konsagou Do	8	2	1	1	1	0	0	0
Douentza	Koumbewel	19	1	1	1	0	0	2	0
Douentza	Madina	7	2	1	1	2	0	0	0
Douentza	Bombara/Ibissa	17	1	1	1	0	0	0	0
Douentza	Synda	4	1	1	1	2	0	0	0
Douentza	Falembougou	7	2	1	1	1	0	0	0
Youwarou	Akka	20	2	1	1	2	0	0	0
Youwarou	Amberi Habré	6	1	1	1	0	0	1	0
Youwarou	Enguem	13	1	1	1	1	1	0	0
Youwarou	Aoure	4	1	1	1	2	2	1	0
Youwarou	Férobhé	6	1	1	1	1	0	0	0
Total		153	20	15	15	16	5	4	0

5.3 Annex 3: Data Collection Tools

5.3.1 Household observations

Observation des menages
Village:
Nombre de menage:
Groupe ethnique:
Nom de l'observateur:
1. Possédez-vous du savon spécifiquement pour se laver les mains et le corps? Oui <input type="checkbox"/> Non <input type="checkbox"/> (demander à la famille de vous montrer le savon)
2. Avez-vous un endroit précis pour se laver les mains? Oui <input type="checkbox"/> Non <input type="checkbox"/> (demander à la famille de vous montrer la station de lavage des mains)
3. Avez-vous une latrine qui est utilisée uniquement par votre famille? Oui <input type="checkbox"/> Non <input type="checkbox"/> (demander à la famille de vous montrer les latrines)

5.3.2 FGDs with Pregnant Mothers and Breastfeeding Mothers of children under 2

Perception et connaissance de la malnutrition

Q1) Observez SVP ces deux enfants et indiquez-nous le quel selon vous est malnutri/en mauvaise santé ***(montrez la planche à images des deux enfants)***. Décrivez l'enfant SVP. Quels sont les caractéristiques principales des enfants malnutris dans votre expérience ? Quel aspect ont-ils dans la réalité ? Est-ce qu'ils sont maigres/gros ? De quel couleur est leur peau ? Est-ce qu'ils sont calmes ou ils crient beaucoup ? Comment appelez-vous la malnutrition dans votre langue locale/dialecte ?

Q2) Y at-il des enfants malnutris dans votre communauté ? Est-ce que la malnutrition est un problème dans votre village ? Connaissez-vous des enfants malnutris ans votre village ?

Q3) Qu'est-ce que les parents font quand leur enfant est malnutri ? (Aller au centre de santé, chez le tradipraticiens). Est-ce que ces traitements fonctionnent ? Est-ce que dans votre expérience la malnutrition peut être traitée et guérie ? Est-ce que quelqu'un parmi vous a un enfant malnutri à la maison présentement ?

Q4) Quelles sont les causes de la malnutrition selon vous ? Est-ce que vous pensez qu'on peut prévenir la malnutrition ? Si oui, qu'est que vous pensez être nécessaire à faire pour la prévenir ? Qu'est que vous faites chez vous pour la prévenir ?

L'enfant en bonne santé

Q5) Regardons ensemble maintenant l'autre enfant. Il a l'ère d'être en bonne santé et bien nourri. Quelles autres caractéristiques vous pensez que les enfants en bonne santé doivent avoir/ont ?

Q6) Qui parmi vous a un enfant qui est comme ça, bien nourri et en bonne santé ? Expliquez-nous SVP comment vous faites pour garder votre enfant en bonne santé. Est-ce que vous mettez en place des actions spécifiques ? Qu'est que vous motive (motive votre famille) à garder l'enfant en bonne santé et bien nourri ?

Nutrition

Q7) Comment alimentez-vous vos enfants ? Quelle nourriture ou type de nourriture vous pensez être mieux indiqué pour alimenter votre enfant ? Est-ce que vous donnez souvent cette nourriture, ou parfois elle n'est pas disponible ? Pourquoi ? Pouvez-vous nous expliquer les raisons qui vous empêchent de donner des aliments nutritifs à votre enfant ?

Pratiques d'alimentation

- Q8)** Selon vous, quel est le rôle et l'importance de la nutrition sur la santé des enfants ?
- Q9)** Pouvez-vous SVP expliquer comment vous nourrissez vos enfants ? Combien de fois par jour ? Est-ce que vous les nourrissez vous-mêmes, ou y a-t-il quelqu'un qui le fait pour vous ? Est-ce que vous avez des horaires réguliers pour les repas ? Est-ce que vous préparez de la nourriture spécialement pour les enfants ?
- Q10)** Quand est-ce que vous avez commencé à donner de la nourriture solide à vos enfants ? Est-ce que vous donnez souvent de la viande ou du poisson ? Des fruits et des légumes ? Est-il facile pour vous d'obtenir ces aliments ? Si non, pourquoi ? Expliquez SVP les difficultés que vous rencontrez pour nourrir adéquatement vos enfants
- Q11)** Dans votre communauté/ménage, l'avis de qui vous est respecté en ce qui concerne la nutrition des enfants ? (belle-mère/grand-mère) ? Quels sont les avis de ces personnes ? Est-ce que vous nourrissez les filles et les garçons de façon différente ? Si oui, pourquoi ?
- Q12)** Est-ce que vous connaissez Misola ? Merci de le décrire et expliquer son utilisation. Est-ce que quelqu'un parmi vous utilise Misola pour nourrir ses enfants ? A quelle âge avez-vous commencé à donner le Misola à vos enfants ?
- Q13)** Est-ce que vous seriez intéressées de le donner à vos enfants ? Pourquoi oui/non ? Combien pensez-vous que votre famille serait prête à payer pour un sachet de Misola ? Pensez-vous que le prix serait un problème ? Qu'est-ce que le projet peut faire pour améliorer la distribution de Misola et sa vulgarisation ?

Exposition Médiatique

- Q14)** Ecoute-t-on la radio dans votre communauté ? Qui écoute la radio le plus souvent ? (Les jeunes, les femmes, les hommes, les personnes âgées ?). Quels sont les moments les plus populaires/convenables pour l'écouter ?
- Q15)** Quel genre de programmes radios vous aimez, et pourquoi ? Est-ce que vous pouvez nous en parler, de quoi parlent-ils ?
- Q16)** Quels autres réseaux sont importants dans votre communauté pour faire passer les informations sur les actions de santé ? (Groupe de partage, tontines)

Nutrition pour les femmes enceintes et allaitantes

Q1) Nous sommes dans un groupe de femmes enceintes ou allaitantes. Je voudrais avoir des informations sur le régime nutritionnel que vous suivez. Par exemple, pour celles d'entre vous qui sont **enceintes**, croyez-vous que vous devriez vous nourrir d'une façon différente des femmes qui ne sont pas enceintes ? Si oui, en quoi votre régime devrait être différent ? Quel type de nourriture devriez-vous manger ?

Q2) Est-ce qu'il y a des aliments que vos parents/le personnel du CSCom vous ont recommandé de manger ? Par exemple, viande, lait, ou autres aliments ? Est-ce que vous trouvez que ces aliments sont nutritifs ? Est-ce qu'ils sont faciles à trouver ? Est-ce qu'il y a des aliments que vous ne pouvez pas manger ? Si oui, lesquels, et pourquoi ?

Q3) Pour celles d'entre vous qui **allaitent**, est-ce que vous pensez que vous devriez manger d'une façon différente des autres femmes ? Si oui, en quoi votre régime devrait être différent ? Quel type de nourriture devriez-vous manger ? Est-ce qu'il y a des aliments que vos parents/le personnel du CSCom vous ont recommandé de manger ? Par exemple, viande, lait, ou autres aliments ? Est-ce que vous trouvez que ces aliments sont nutritifs ? Est-ce qu'ils sont faciles à trouver ? Est-ce qu'il y a des aliments que vous ne pouvez pas manger ? Si oui, les quels, et pour quoi ?

Q4) Maintenant je m'adresse à vous toutes, enceintes et allaitantes. Je voudrais savoir, combien de fois par jour vous mangez. Dans quelle quantité ? Est-ce que dans les ménage ont un accès régulier à la nourriture nutritive et en quantité suffisante ? Si non, expliquez-nous SVP quels sont les principaux obstacles et quelles solutions vous avez pour avoir accès à la nourriture pour vous, en quantité suffisante.

Partage de la nourriture au niveau du ménage

Q5) Qui est ce qui décide dans les ménages de ce que les femmes enceintes et allaitantes doivent manger ? Est-ce que la nourriture est partagée dans le ménage selon une certaine règle ? (Ex. les femmes mangent les premières, les enfants mangent les premiers, les aînés ont la priorité ?) Quelles sont ces règles et qui est en charge de s'assurer qu'elle soit suivie ?

Grossesse

Q6) Dans votre communauté, habituellement combien d'enfants une femme a-t-elle ? Quel est le nombre d'enfants qui est considéré idéal ? (4, 5, plus ?). Combien d'enfants est-ce que chacune de vous a ?

Q7) Qui décide normalement du nombre d'enfants à avoir ? Est-ce la femme, l'homme, ou les deux ensemble ? Est-ce qu'il y a quelqu'un dans la famille qui conseille le nombre d'enfants qu'il faudrait avoir ?

Q8) A quel âge une femme normalement a son premier enfant ? Est-ce que c'est avant ou après 18 ans ? Qu'est que vous pensez à propos du fait d'avoir des enfants quand vous êtes encore des jeunes filles – avant 18 ans ? Est-ce une bonne chose ? Si non, qu'est-ce qui vous empêche d'attendre le bon âge ? Est-ce que quelqu'un dans la famille n'approuve pas l'idée d'attendre l'âge de 18 ans pour la première grossesse ?

Q9) Dans le but de protéger la santé de la mère et de l'enfant, il est aussi recommandé que les couples attendent que le premier enfant ait 2 ans, avant d'essayer d'avoir une autre grossesse. Qu'est que vous pensez de ce conseil ? Comment ça se passe dans votre communauté ? Est qu'il y a eu de cas de femmes qui ont eu des enfants sans attendre qu'il y ait 2 ans d'intervalle ? Est-ce fréquent ? A quoi cela est-il dû ?

Espacement des naissances et planification familiale (PF)

Q10) Maintenant, nous allons parler de la planification familiale. Qu'est que pensez-vous de la planification familiale ? Pensez-vous qu'elle (PF) serait bien pour votre famille ? Expliquez pourquoi SVP.

Q11) Est-ce que vous connaissez quelles sont les options de planification familiale disponibles ? Où est-ce que vous pouvez les obtenir ? Avez-vous utilisé une de ces options de PF ? Est-ce facile/difficile de les obtenir ? Donnez SVP des exemples dans vos expériences ?

Q12) Quels sont les facteurs qui influenceront votre décision de chercher des options de planification familiale ? Qui décidera, vous, votre mari, ou les deux ensembles ?

Q13) Que pensez-vous qu'on pourrait faire pour rendre la planification familiale plus facile/acceptable/désirable ?

Lavage des mains

Q1) Quand est-ce que habituellement vous vous lavez les mains pendant la journée ? (Est-ce que c'est à des moments non établis ? Avant de manger ? A la sortie de la toilette ?). Est-ce que vous utilisez du savon ?

Q2) Qu'est que vous motive à laver vos mains ?

Q3) Qu'est que vous motive à ne pas laver vos mains ?

Q4) Est-ce que vous lavez les mains de vos enfants ? Quand ? Pourquoi ?

Q5) Est-ce que votre famille a une latrine ? Où est-ce qu'elle se trouve ? Qui l'utilise ? Si vous n'en avez pas, où est-ce que vous allez pour déféquer ? Où est-ce que les enfants font habituellement pour déféquer ?

5.3.3 Focus Group Discussions with Fathers of children under 2

Perception et connaissance de la malnutrition

- Q17)** Observez SVP ces deux enfants et indiquez-nous le quel selon vous est malnutri/en mauvaise santé **(montrez la planche à images des deux enfants)**. Décrivez l'enfant SVP. Quels sont les caractéristiques principales des enfants malnutris dans votre expérience ? Quel aspect ont-ils dans la réalité ? Est-ce qu'ils sont maigres/gros ? De quel couleur est leur peau ? Est-ce qu'ils sont calmes ou ils crient beaucoup ? Comment appelez-vous la malnutrition dans votre langue locale/dialecte ?
- Q18)** Y at-il des enfants malnutris dans votre communauté ? Est-ce que la malnutrition est un problème dans votre village ? Connaissez-vous des enfants malnutris ans votre village ?
- Q19)** Qu'est-ce que les parents font quand leur enfant est malnutri ? (Aller au centre de santé, chez le tradipraticiens). Est-ce que ces traitements fonctionnent ? Est-ce que dans votre expérience la malnutrition peut être traitée et guérie ? Est-ce que quelqu'un parmi vous a un enfant malnutri à la maison présentement ?
- Q20)** Quelles sont les causes de la malnutrition selon vous ? Est-ce que vous pensez qu'on peut prévenir la malnutrition ? Si oui, qu'est que vous pensez être nécessaire à faire pour la prévenir ? Qu'est que vous faites chez vous pour la prévenir ?

L'enfant en bonne santé

- Q21)** Regardons ensemble maintenant l'autre enfant. Il a l'ère d'être en bonne santé et bien nourri. Quelles autres caractéristiques vous pensez que les enfants en bonne santé doivent avoir/ont ?
- Q22)** Qui parmi vous a un enfant qui est comme ça, bien nourri et en bonne santé ? Expliquez-nous SVP comment vous faites pour garder votre enfant en bonne santé. Est-ce que vous mettez en place des actions spécifiques ? Qu'est que vous motive (motive votre famille) à garder l'enfant en bonne santé et bien nourri ?

Nutrition

- Q23)** Comment alimentez-vous vos enfants ? Quelle nourriture ou type de nourriture vous pensez être mieux indiqué pour alimenter votre enfant ? Est-ce que vous donnez souvent cette nourriture, ou parfois elle n'est pas disponible ? Pourquoi ? Pouvez-vous nous expliquer les raisons qui vous empêchent de donner des aliments nutritifs à votre enfant ?

Grossesse

- Q24)** Dans votre communauté, habituellement combien d'enfants une femme a-t-elle ? Quel est le nombre d'enfants qui est considéré idéal ? (4, 5, plus ?). Combien d'enfants est-ce que chacune de vous a ?
- Q25)** Qui décide normalement du nombre d'enfants à avoir ? Est-ce la femme, l'homme, ou les deux ensemble ? Est-ce qu'il y a quelqu'un dans la famille qui conseille le nombre d'enfants qu'il faudrait avoir ?
- Q26)** A quel âge une femme normalement a son premier enfant ? Est-ce que c'est avant ou après 18 ans ? Qu'est que vous pensez à propos du fait d'avoir des enfants quand vous êtes encore des jeunes filles – avant 18 ans ? Est-ce une bonne chose ? Si non, qu'est-ce qui vous empêche d'attendre le bon âge ? Est-ce que quelqu'un dans la famille n'approuve pas l'idée d'attendre l'âge de 18 ans pour la première grossesse ?
- Q27)** Dans le but de protéger la santé de la mère et de l'enfant, il est aussi recommandé que les couples attendent que le premier enfant ait 2 ans, avant d'essayer d'avoir une autre grossesse. Qu'est que vous pensez de ce conseil ? Comment ça se passe dans votre communauté ? Est qu'il y a eu de cas de femmes qui ont eu des enfants sans attendre qu'il y ait 2 ans d'intervalle ? Est-ce fréquent ? A quoi cela est-il dû ?

Espacement des naissances et planification familiale

- Q28)** Maintenant, nous allons parler de la planification familiale. Qu'est que pensez-vous de la planification familiale ? Pensez-vous qu'elle (PF) serait bien pour votre famille ? Expliquez pourquoi SVP.
- Q29)** Est-ce que vous connaissez quelles sont les options de planification familiale disponibles ? Où est-ce que vous pouvez les obtenir ? Avez-vous utilisé une de ces options de PF ? Est-ce facile/difficile de les obtenir ? Donnez SVP des exemples dans vos expériences ?
- Q30)** Quels sont les facteurs qui influenceront votre décision de chercher des options de planification familiale ? Qui décidera, vous, votre mari, ou les deux ensemble ?
- Q31)** Que pensez-vous qu'on pourrait faire pour rendre la planification familiale plus facile/acceptable/désirable ?

Lavage des mains

- Q1)** Quand est-ce que habituellement vous vous lavez les mains pendant la journée ? (Est-ce que c'est à des moments non établis ? Avant de manger ? A la sortie de la toilette ?). Est-ce que vous utilisez du savon ?
- Q2)** Qu'est que vous motive à laver vos mains ?
- Q3)** Qu'est que vous motive à ne pas laver vos mains ?
- Q4)** Est-ce que vous lavez les mains de vos enfants ? Quand ? Pourquoi ?
- Q5)** Est-ce que votre famille a une latrine ? Où est-ce qu'elle se trouve ? Qui l'utilise ? Si vous n'en avez pas, où est-ce que vous allez pour déféquer ? Où est-ce que les enfants font habituellement pour déféquer ?

Exposition aux media

- Q6)** Ecoute-t-on la radio dans votre communauté ? Qui écoute la radio le plus souvent ? (Les jeunes, les femmes, les hommes, les personnes âgées ?). Quels sont les moments les plus populaires/convenables pour l'écouter ?
- Q7)** Quel genre de programmes radios vous aimez, et pourquoi ? Est-ce que vous pouvez nous en parler, de quoi parlent-ils ?
- Q8)** Quels autres réseaux sont importants dans votre communauté pour faire passer les informations sur les actions de santé ? (Groupe de partage, tontines)

5.3.4 Focus Group Discussions with Grandmothers and Mothers-in-law of children under 2

Partage de la nourriture dans le ménage

- Q9)** Je voudrais discuter avec vous à propos de la nutrition des femmes enceintes et allaitantes. Combien de fois par jour mangent-elles ? Quelle quantité ? Pensez-vous que les ménage ont régulièrement et suffisamment accès aux aliments nutritifs ? Si non, expliquez svp quels sont les principaux obstacles, et quel type de solution vous mettez en place pour avoir accès à la nourriture suffisante.
- Q10)** Qui décide dans le ménage de ce que les femmes enceintes et allaitantes mangent ? Est-ce que la nourriture est partagé dans le ménage selon certaines règles ? (ex. les femmes mangent les premières, les enfants mangent les premiers, les aînés ont la priorité ?) Quelles sont ces règles, et qui est en charge de s'assurer qu'elles soient suivies ? Est-ce que vous jouez un rôle dans ces décisions ou la mise en place de ces règles ?
- Q11)** Est-ce qu'il y a des aliments que les femmes enceintes et allaitantes ne peuvent pas manger? Ou des aliments qu'on lui recommande de manger?

Pratiques d'alimentation

- Q12)** Selon vous, quel est le rôle et l'importance de la nutrition sur la santé des enfants ?
- Q13)** Pouvez-vous SVP expliquer comment vous vos petits enfants sont ils nourris ? Combien de fois par jour ? Est-ce que vous les nourrissez vous-mêmes? Y-a-il des horaires réguliers pour les repas ? Préparez-vous de la nourriture spécialement pour les enfants ?
- Q14)** Quand est-ce que vous avez commencez à donner de la nourriture solide à vos petits enfants ? Est-ce que vous donnez souvent de la viande ou du poisson? Des fruits et des légumes ? Est-il facile pour vous d'obtenir ces aliments ? Si non, pourquoi? Expliquez SVP les difficultés qui vous rencontrez pour nourrir adéquatement vos enfants.
- Q15)** Dans votre communauté/ménage, l'avis de qui est-il respecté pour ce qui concerne la meilleure façon de nourrir les enfants (belle-mère/grand-mère?) ? Quels sont les avis de ces personnes ? Est-ce que vous nourrissez les filles et les garçons d'une façon différente ? Si oui, pourquoi?
- Q16)** Est-ce que vous connaissez Misola? Merci de le décrire et expliquer son utilisation. Est-ce que quelqu'un parmi vous utilise Misola pour nourrir ses petits enfants ? A quelle âge avez-vous commencé à donner du Misola à vos petits enfants ?
- Q17)** Est-ce que vous seriez intéressées de le donner à vos petits enfants ? Pourquoi oui/non? Combien vous pensez que votre famille serait prête à payer pour un sachet de Misola? Est-ce que vous pensez que le prix serait un problème? Que-ce-est que le projet peut faire pour améliorer la distribution de Misola et sa vulgarisation?

Exposition aux media

Q18) Ecoute-t-on la radio dans votre communauté ? Qui écoute la radio le plus souvent ? (Les jeunes, les femmes, les hommes, les personnes âgées ?). Quels sont les moments les plus populaires/convenables pour l'écouter ?

Q19) Quel genre de programmes radios vous aimez, et pourquoi ? Est-ce que vous pouvez nous en parler, de quoi parlent-ils ?

Q20) Quels autres réseaux sont importants dans votre communauté pour faire passer les informations sur les actions de santé ? (Groupe de partage, tontines)

5.3.5 KIs with stakeholders

Leaders de la Communauté/Leaders religieux		
Localité :	Date :	Répondant : Homme <input type="checkbox"/> Femme <input type="checkbox"/> Fonction :.....
Perception et connaissance de la malnutrition		
<p>Q1) J'imagine que vous avez vu des enfants malnutri dans les communautés ou vous travaillez. Est-ce que selon vous la malnutrition c'est un gros problème ? Combien d'enfants malnutris sévères vous traité/vu au cours d'un mois ? Est-ce que la majorité sont des filles ou des garçons ?</p> <p>Q2) - Qu'est que les parents font quand ils pensent que leur enfant est malnutri ? (Aller au CSCCom, chez le tradipraticien, etc.). Quel type de traitement préfèrent-ils ? Est-ce que vous pensez qu'ils vont plus souvent au CSCCom ou plutôt ils essayent des remèdes à la maison ? Pour quoi ? S'ils vont au CSCCom, est-ce que vous voyez beaucoup de cas d'abandon/relapse ? Est-ce que le traitement d'habitude arrive à guérir les enfants ?</p>		
Pratiques de la nutrition et connaissance de Misola		
<p>Q3) - Quels sont selon vous les facteurs principaux qui contribuent à la malnutrition dans les communautés ou vous travaillez ? Quelles sont les pratiques d'alimentation des enfants que vous pensez peuvent jouer un rôle ? Qu'est que détermine l'adoption de ces pratiques ? (Croyances, limitations économiques, accès). Quelles sont les maladies principales qui peuvent contribuer à la malnutrition ? Quelles sont les pratiques de traitement des maladies qui peuvent contribuer à la malnutrition ? Qu'est que détermine l'adoption de ces pratiques ? Quelles pratiques WASH peut contribuer à la malnutrition ?</p> <p>Q4) - Selon vous à quel point la malnutrition est lié aux pratiques des soins des enfants ? Pensez-vous qu'une connaissance insuffisante de la part de la mère des pratiques d'alimentation des enfants est un facteur important ? Selon vous, quels sont les erreurs qu'ils font d'habitude quand ils nourrissent les enfants ?</p> <p>Q5) - Est-ce que vous connaissez Misola ? Etes-vous au courant, est-ce qu'il y a des gens dans les communautés qui nourrissent leurs enfants avec Misola ? Est-ce que vous pensez que les mères seraient intéressées à le donner à leurs enfants ? Est-ce que le prix serait un problème ? Quel pris pensez-vous les familles seraient prêtes à payer pour la quantité nécessaire pour un jour ?</p>		
Lavage des mains et utilisation de la latrine		
<p>Q6) - Nous allons parler des pratiques d'hygiène. Dans votre expérience, qu'est que motive les personnes à laver leur main ? (Éliminer les mauvais odeurs/prévenir les maladie/parce qu'ils voient les autres le faire/parce que ils ne veulent pas contaminer leur familles).</p>		

Q7) Quelles sont les raisons qui empêchent les personnes de laver leurs mains ? (Ils ne voient pas la nécessité/la manqué d'eau ou de savon/ils n'ont pas l'habitude)

Q8) Est-ce que les ménages ont des latrines ? Si non, ou est-ce que les gens vont pour déféquer ? Ou est-ce que les enfants vont pour déféquer ?

Planification familialier

Q9) - Maintenant nous allons parler de PF. Expliquez svp si votre centre de santé offre des services de PF, et quelles options sont disponibles. Est-ce que les personnes dans les communautés connaissent les options de PF disponibles, et où on peut les obtenir ? Est-ce que c'est difficile/facile pour eux d'obtenir les produits PF ? Donnez svp des exemples de votre expérience

Q10) - Quels sont selon vous les obstacles sociaux que les femmes rencontrent s'ils veulent avoir accès à la PF ? (Est-ce qu'ils ont besoin de l'approbation de leurs maris ? Est-ce qu'il y a une pression sociale pour avoir beaucoup d'enfants ? est-ce que les grand-mères/belles-mères influencent les décisions à ce propos ?)

Nutrition pour les femmes enceintes et allaitantes

Q11) - Dans votre expérience, comment est-ce que les femmes enceintes et allaitantes dans les communautés mangent ? Avec quelle fréquence ? Est-ce qu'ils ont accès à des aliments nutritifs comme lait, légumes, viande ? (Qu'est que vous pensez empêche les familles à avoir accès à des aliments nutritifs ? Est-ce que c'est un manque de connaissances ? Manque de moyens économiques ? Non disponibilité des aliments ?

Q12) - Est-ce que selon vous les femmes enceintes et allaitantes suivent un régime alimentaire spécifique ? Un régime ou ils ne peuvent pas consommer des aliments qui sont considérés tabou ? Pouvez-vous expliquer svp ce que vous savez de ça ?

Q13) - Qui dans la famille influence la répartition des aliments et des divisions, par exemple qui mange quoi et qui mange d'abord ? Est-il grand-mères ? Les mères ? Qui d'autre ?

Entretiens avec Personnel de santé/ONG

Localité :

Date :

Masculin Féminin

.....

.....

Fonction:.....

Perception et Connaissance de la Malnutrition

Q1) J'imagine que vous avez vu des enfants malnutri dans les communautés ou vous travaillez. Est-ce que selon vous la malnutrition c'est un gros problème ? Combien d'enfants malnutris sévères vous traité/vu au cours d'un mois ? Est-ce que la majorité sont des filles ou des garçons ?

Q2) Qu'est que les parents font quand ils pensent que leur enfant est malnutri ? (Aller au CSCCom, chez le tradipraticien, etc.). Quel type de traitement préfèrent-ils ? Est-ce que vous pensez qu'ils vont plus souvent au CSCCom ou plutôt ils essayent des remèdes à la maison ? Pourquoi ? S'ils vont au CSCCom, est-ce que vous voyez beaucoup de cas d'abandon/rechute ? Est-ce que le traitement d'habitude arrive à guérir les enfants ?

Pratiques d'alimentation de l'enfant et connaissance de M'isola

Q3) - Quels sont selon vous les facteurs principaux qui contribuent à la malnutrition dans les communautés ou vous travaillez ? Quelles sont les pratiques d'alimentation des enfants que vous pensez peuvent jouer un rôle ? Qu'est que détermine l'adoption de ces pratiques ? (Croyances, limitations économiques, accès). Quelles sont les maladies principales qui peuvent contribuer à la malnutrition ? Quelles sont les pratiques de traitement des maladies qui peuvent contribuer à la malnutrition ? Qu'est que détermine l'adoption de ces pratiques ? Quelles pratiques WASH peut contribuer à la malnutrition ?

Q4) - Selon vous à quel point la malnutrition est lié aux pratiques des soins des enfants ? Pensez-vous qu'une connaissance insuffisante de la part de la mère des pratiques d'alimentation des enfants est un facteur important ? Selon vous, quels sont les erreurs qu'ils font d'habitude quand ils nourrissent les enfants ?

Q5) - Est-ce que vous connaissez Misola ? Etes-vous au courant, est-ce qu'il y a des gens dans les communautés qui nourrissent leurs enfants avec Misola ? Est-ce que vous pensez que les mères seraient intéressées à le donner à leurs enfants ? Est-ce que le prix serait un problème ? Quel pris pensez-vous les familles seraient prêtes à payer pour la quantité nécessaire pour un jour ?

Lavage des mains et utilisation des latrines

Q6) - Nous allons parler des pratiques d'hygiène. Dans votre expérience, qu'est ce qui motive les personnes à laver leurs mains ? (Éliminer les mauvaises odeurs/prévenir les maladies/parce qu'ils voient les autres le faire/parce que ils ne veulent pas contaminer leur famille).

Q7) Quelles sont les raisons qui empêchent les personnes de laver leurs mains ? (Ils ne voient pas la nécessité/la manque d'eau ou de savon/ils n'ont pas l'habitude)

Q8) Est-ce que les ménages ont des latrines ? Si non, où est-ce que les gens vont pour déféquer ? Où est-ce que les enfants vont pour déféquer ?

Planification familiale et valeurs

Q9) - Maintenant nous allons parler de PF. Expliquez svp si votre centre de santé offre des services de PF, et quelles options sont disponibles. Est-ce que les personnes dans les communautés connaissent les options de PF disponibles, et où on peut les obtenir ? Est-ce que c'est difficile/facile pour eux d'obtenir les produits PF ? Donnez svp des exemples de votre expérience

Q10) - Quels sont selon vous les obstacles sociaux que les femmes rencontrent s'ils veulent avoir accès à la PF ? (Est-ce qu'ils ont besoin de l'approbation de leurs maris ? Est-ce qu'il y a une pression sociale pour avoir beaucoup d'enfants ? Est-ce que les grand-mères/belles-mères influencent les décisions à ce propos ?)

Nutrition pour les femmes enceintes et allaitantes

Q11) - Dans votre expérience, comment est-ce que les femmes enceintes et allaitantes dans les communautés mangent ? Avec quelle fréquence ? Est-ce qu'ils ont accès à des aliments nutritifs comme lait, légumes, viande ? (Qu'est ce que vous pensez empêche les familles d'avoir accès à des aliments nutritifs ? Est-ce que c'est un manque de connaissances ? Manque de moyens économiques ? Non disponibilité des aliments ?)

Q12) - Est-ce que selon vous les femmes enceintes et allaitantes suivent un régime alimentaire spécifique ? Un régime où ils ne peuvent pas consommer des aliments qui sont considérés tabou ? Pouvez-vous expliquer svp ce que vous savez de ça ?

KII avec les producteurs de Misola

Localité :	Date :	Répondant : Masculin <input type="checkbox"/> Féminin <input type="checkbox"/> Fonction :.....
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Production et distribution de Misola

- Q1)** Nous sommes ici pour discuter avec vous la production Misola et sa vendre. Est-ce que vous vendez directement ? Y at-il comme un réseau de distribution ? S'il vous plaît, décrivez le type de système que vous utilisez. Est Misola bien distribué à votre avis ?
- Q2)** S'il vous plaît, expliquez comment vous commercialisez ce produit aux familles dans les communautés voisines et comment vous persuadez les gens à acheter pour leurs enfants. Commentez également sur ce qui peut être amélioré dans la commercialisation.
- Q3)** Comment décririez-vous la perception de Misola par les communautés locales ? Est-ce c'est quelque chose qu'ils savent ? Comprennent-ils la valeur du produit (pour la santé) et si non, ce qui est nécessaire à faire pour construire cette prise de conscience ? Est-ce c'est chose qu'ils / peuvent acheter ? Pensez-vous que les familles peuvent se le permettre ? Combien coûte ce coût (par sac / kg) et combien il est généralement nécessaire par famille ?
- Q4)** - Que suggèreriez-vous faire pour améliorer la consommation de Misola ? Améliorer la distribution ? Diminuer le prix ? Améliorer les connaissances des gens dès les avantages ?

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