



REPORT

BASELINE STUDY OF THE USAID / FOOD FOR PEACE PROJECT IN KASAI ORIENTAL



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I. SUMMARY

a. OVERVIEW OF THE BASELINE ASSESSMENT

This baseline study is part of an activity planned under the Save the Children implemented project entitled “Increasing Nutrition Security in Kasai Oriental, DRC”, funded by the United States Agency for International Development (USAID), and covering the period between August 2020 and July 2021. This emergency project aims to contribute to the reduction of morbidity and mortality due to malnutrition in children under the age of five in targeted vulnerable communities in the province of Kasai Oriental by supporting the Ministry of Health in the implementation and scale-up of integrated management of acute malnutrition (IMAM). From this perspective, this project will increase access to nutritional inputs and build the capacity of health care providers and community volunteers to identify, refer and treat acute malnutrition as well as support and protect Infant and Young Child Feeding (IYCF) best practices for pregnant and lactating women, including adolescent girls in the six targeted health zones in the Kasai Oriental Province.

This study is based on mixed evaluation methods including a representative household survey, as well as the collection of additional information from targeted support structures to provide information on the main FFP indicators and those specific to the project. This study also included a qualitative analysis in order to collect data to enrich the context in which the project will be carried out, to enrich and deepen the results of the household survey.

The sample for the population-based survey was selected using a two-stage cluster sampling approach to be statistically representative of the project areas. The survey questionnaire was developed through a series of consultations with the project team, the program development and quality team (PDQ), including the MEAL specialist and the Technical Advisors (TA). Training, pre-tests and pilot tests were performed to test the questionnaire and prepare the team for data collection. The fieldwork took place over a nine-day period, from October 1 to October 9, 2020. Interviews were conducted in 677 households. The qualitative study was designed and conducted at the same time as the household survey. The SCI country team, with the support of the SCUS team, developed and finalized the methodology, cluster selection and interview guide for the qualitative study. Data collection for the qualitative study took place during the same period in 43 health areas of the six health zones targeted by the project, in which 107 interviews were carried out with key people targeted at the level of the intervention zones.

b. MAIN FINDINGS

The following is a summary of the characteristics of the study population and estimates of basic indicators on child nutrition, household food security, and survival and resilience strategies. The main findings are highlighted and recommendations formulated for better project implementation and consideration during the selection and targeting of beneficiaries.

Household characteristics:

The number of people living in the 677 households surveyed is 4,965 people, with an average household size of 7.33 people per household. The majority of the surveyed population (94%) is represented by adults aged 20 and over, while the 14 to 19-year-old category represents 6% of the surveyed population. The average age (in years) of the survey sample is estimated at 29.1. The majority of households (70%) are native or resident in the targeted areas. A quarter (25%) represents the returnee population, while internally displaced persons and refugees represent 4% and 1% respectively. The majority of people surveyed (97%) are women. Six out of 10 heads of households (59%) have a primary education level. Almost two in 10 heads of households (18%) have a university level while 23% of the heads of households surveyed have no level of education or have never attended school.

Exclusive Breastfeeding:

The indicators of the nutritional status of children show that the prevalence of exclusive breastfeeding (EB) in the project areas is slightly higher (57.8%) than that reported in the MICS survey 2017- 2018 (55.0%) for the province of Kasai. More than half (53.7%) of infants aged 4 to 5 months are breastfed and receive complementary foods, contrary to the World Health Organization guidelines on exclusive breastfeeding for the first 6 months. Although continued breastfeeding is a common practice, 81% of mothers breastfeed their babies within one hour of birth.

Prevalence of acute malnutrition (based on MUAC measurements)

The analysis of the prevalence of acute malnutrition based on the Upper Arm Perimeter (MUAC) of all children aged six to 59 months shows a prevalence above the emergency thresholds (Acute malnutrition rate = 25.8%). Data from the analysis show higher rates for children in the six to 23-month age group (27.7%) compared to the 24 to 59-month age group (25.3%). Although the difference between the two sexes is not statically significant, in absolute terms, acute malnutrition appears to be higher in girls (26.4%) than in boys (25.5%).

Food consumption score

The food consumption score indicates that only 28% of households in six health zones have an acceptable level of food consumption while 72% have either a borderline (30%) or poor (42%) level of food consumption. Households with both adult males and females tend to score better on these indicators compared to households with either adult males or females only.

Reduced Coping Strategies Index (rCSI):

The average rCSI score is 20,46 in the project areas. About 6 out of 10 households (59.8%) are using multiple negative coping strategies. This result confirms that the various shocks suffered in the last five years have led a large proportion of households in the project intervention area to resort to emergency strategies. Per the IPC acute food insecurity indicator thresholds, households in the surveyed area show rCSI scores consistent with IPC phase 3.

Almost all households in the project areas use some kind of cash transfer to purchase food. Household assets, cash savings and social capital are important factors for resilience capacities. The resilience capacities of households with either adult males or females only are lower than households with both adult males and females.

Table 1 : Summary of findings

	Target population	Base value
Exclusive Breastfeeding (EB) and Minimum Dietary Diversity (MDD) Indicators		
% of children 0 to 5 months who have been exclusively breastfed in the 6 health zones	Girls and Boys aged 0 to 5 months	57,8%
% of children 6-23 months consuming food from four or more food groups	Girls and Boys aged 6 to 23 months	5,3%
Acute malnutrition indicator		
Prevalence of Acute Malnutrition in Children Under 5	Girls and Boys under 5 years old	25,8% (22,7 - 29,2 95% C.I.)
	Girls and Boys under 2 years old	27,7% (20,9 - 35,6 95% C.I.)
Food security indicators		
% of households with an acceptable food consumption score	Households with a child under 2 years old	28% (22,97 – 33,02 95% C.I.)
Average Reduced Coping Strategies Index (rCSI) Score	Households with a child under 2 years old	20,46

c. CONCLUSIONS AND RECOMMENDATIONS

The results of the baseline study show that the level of education of the head of household, or specifically of the woman, is strongly associated with greater household dietary diversity. Improving household dietary diversity, indicating an improvement in the socio-economic situation of households, could also translate into access to quality food for women and children. Efforts are therefore needed to support and increase adherence to recommended infant and young child feeding practices, including activities, although knowledge does not always translate into practice. Many women in this survey do not have a say in decisions about their own health or that of their children; therefore, nutrition education and awareness for improved maternal and child nutrition (MCN) are needed.

Analysis of the reduced coping strategies indicates that project households face an above-average severity level (consistent with IPC phase 3) due to the shocks. The results of this baseline assessment show that in all areas of the

project, with the exception of the Kansasa health zone, the average rCSI score is 20.46 out of a total possible score of 56. This proves that households are using a wide range of negative coping strategies.

These practices negatively impact the short and long term nutritional status of children. Given these findings, efforts to promote food production or food access opportunities, especially for women, would go a long way in helping households improve their capacity to access food in difficult times.

In conclusion, the baseline assessment of the USAID project succeeded in bringing out the baseline values for the key indicators and provided rigorous evidence on the prevailing nutritional situation in the six targeted health zones (Miabi, Cilundu, Kabeya Kamuanga, Kasansa, Tshitenge and Tshishimbi) before the implementation of activities. This report was able to collect the data and define the benchmark indicators as well as those of the health facilities. This comparative data will provide for evidence-based learning content and will also allow for comparisons to be made during implementation and final evaluation phases.

This activity also made it possible to confirm that the objectives of the FFP project will make it possible to respond directly to the real nutritional needs of the health zones assessed. Thus, the provision of technical support through training, support and logistics (transport of inputs and storage) is essential. From the findings, we can here confirm that the targeting of beneficiaries during project design was relevant.

Contents

ACKNOWLEDGMENTS.....	2
I. SUMMARY.....	3
a. OVERVIEW OF THE BASELINE ASSESSMENT.....	3
b. MAIN FINDINGS.....	3
<i>Household characteristics:</i>	4
<i>Exclusive Breastfeeding:</i>	4
<i>Prevalence of acute malnutrition (based on MUAC measurements)</i>	4
<i>Food consumption score</i>	4
<i>Reduced Index of Coping Strategies (rCSI) (RiA):</i>	4
c. CONCLUSIONS AND RECOMMENDATIONS	5
LIST OF TABLES	8
LIST OF FIGURES	8
ABBREVIATIONS AND ACRONYMS.....	9
PROJECT SUMMARY.....	11
2. OBJECTIVE, COVERAGE METHODOLOGY AND LIMITS OF THE ASSESSMENT	12
I- OBJECTIVE OF THE ASSESSMENT.....	12
II- ASSESSMENT METHODOLOGY	12
III. 1. Sampling strategy.....	13
III. 2. Selection and training of interviewers & supervisors.....	16
III. 3. Data Collection.....	16
III. 4. Organization of supervision	16
III. 5. Ethical considerations.....	17
III. 6. CHALLENGES AND LIMITATIONS.....	17
3. RESULTS	19
3. 1. Demographic characteristics.....	19
3. 2. Exclusive Breastfeeding (EB) and Minimum Acceptable Diet (MAD)	22
3. 2. a. Exclusive Breastfeeding (EB)	22
3.2.b. Initiation of breastfeeding (early breastfeeding)	22
3. 2. c. Minimum Acceptable Diet (MAD)	23
3.3. Food security and livelihoods	24
3.3.1. Food consumption score (FCS).....	24
3.3.2. Coping Strategies Index (CSI).....	25
3. 4. Discussion	31
3. 5. Targeted health facility data.....	36
4. CONCLUSION	49
5. RECOMMENDATIONS.....	49

LIST OF TABLES

Table 1 : Summary of findings.....	5
Table 2 : Sample size calculation formula	14
Table 3 : Population and zones targeted for data collection	14
Table 4 : Sociodemographic characteristics of the mothers or caregivers interviewed	19
Table 5 : % of infants 0 to 5 months exclusively breastfed (RiA)	22
Table 6 : Proportion of infants 0-23 months of age who were breastfed within 1 hour of birth	22
Table 7 : Trend in consumption of food groups by children aged 6-23 months.....	23
Table 8 : Households according to the used coping strategy severity scale.....	25
Table 9 : Coping strategies used by the households surveyed	25
Table 10: Age and sex distribution of the sample	26
Table 11: Prevalence of Acute Malnutrition, based on Brachial Perimeter (MUAC) by age group	26
Table 12: Prevalence of Acute Malnutrition based on MUAC and Gender	27
Table 13: HF staff.....	36
Table 14: Summary information on HF.....	38
Table 15: Summary of IYCF activity data.....	40
Table 16: Anthropometric equipment and inputs.....	42
Table 17: Training data	44
Table 18: Number of people admitted to health facilities (including supported sites) for the management of acute malnutrition	45

LIST OF FIGURES

Figure 1 : Food group consumed by children aged 6 to 23 months.....	23
Figure 2 : Proportion of children aged 6 to 23 who consumed milk-based meals in the last 24 hours	24
Figure 3 : Food consumption score (FCS) of the households surveyed.....	24
Figure 4 : Seniority in the HF.....	36
Figure 5 : HF respondent's education level.....	36
Figure 6 : Type of services offered by the HFs visited	37
Figure 7 : Data on nutrition services (IYCF and IMAM)	40
Figure 9 : HF supports other acute malnutrition care sites	45
Figure 8 : Organization of the management of acute malnutrition.....	45

ABBREVIATIONS AND ACRONYMS

ACF	: Action Contre la Faim
CODESA :	Comité de Développement de la Santé
rCSI	: Reduced Coping Strategies Index
DDS	: Dietary diversity score
DRC	: Democratic Republic of Congo
EB	: Exclusif Breastfeeding
ENA	: Emergency Nutrition Assessment
FAO	: Food and Agriculture Organisation of the United Nations
FCS	: Food consumption score
FFP	: Food for Peace
AM	: Acute Malnutrition
HF	: Health Facility
HH	: Households
HZ	: Health Zone
IDIs	: In-depth interviews
IMAM	: Integrated Management of Acute Malnutrition
IPC	: Integrated Food Security Phase Classification
IYCF	: Infant and Young Children Feeding
KAP	: Knowledge, Attitudes and Practices
KIs	: Key informants
KO	: Kasai Oriental
MDD	: Minimum Dietary Diversity
MAM	: Moderate Acute Malnutrition
MCN	: Maternal and child nutrition
MEAL	: Monitoring-Evaluation, Learning, Accountability and Research
MICS	: Multiple Indicator Cluster Surveys
MUAC	: Mid-Upper Arm Circumference
OCHA	: United Nations Office for the Coordination of Humanitarian Affairs
ORS	: Oral Rehydration Solution
PDQ	: Program Development and Quality
PHD	: Provincial Health Division
PPS	: probability proportional to size
PRONANUT	: Programme National de Nutrition
rCSI	: Reduced Coping Strategies Index
RECO	: Relais communautaires
RMEAL	: Monitoring-Evaluation, Learning, Accountability and Research Manager

RUTF	: Ready to Use Therapeutic Food
SAM	: Severe Acute Malnutrition
SCI	: Save the Children international
SP	: Signature programme
SPP	: Size proportional to population
TA	: Technical Advisor
UNICEF	: United Nations International Children's Emergency Fund
US	: United States
USAID	: United States Agency for International Development
WHO	: World Health Organisation

PROJECT SUMMARY

Name of the project	: Increased Nutritional Security in Kasai Oriental Province
Global Objective	: Contribute to the reduction of morbidity and mortality due to malnutrition in children under five in vulnerable communities of Kasai Oriental by supporting the Provincial Health Division (PHD) and PRONANUT in scaling up the IMAM
Duration	: 12 months
Start and end date	: August 2020 - July 2021
Intervention Zones	: Six health zones in five territories of the Kasai Oriental province (Miabi, Cilundu, Kabeya Kamuanga, Kasansa, Tshitenge and Tshishimbi)
PEC MAS target	: 26,911 children

2. OBJECTIVE, COVERAGE METHODOLOGY AND LIMITS OF THE ASSESSMENT

I- OBJECTIVE OF THE ASSESSMENT

The main objective of the baseline assessment was to identify, articulate and document existing nutrition and food security needs and to inform Save the Children's programmatic decisions. The assessment also helped establish the basis for the project's key indicators and will serve as the basis for measuring project performance over time.

The specific objectives for this baseline study:

- Measure the key indicators as defined in the logical framework of the project "Increase the nutritional security of vulnerable populations in the province of Kasai Oriental" through a baseline assessment.
- Collect and analyze the available secondary data in order to establish the accountability and the relevance for an effective implementation of the project.
- Identify the main external factors that can influence or affect the implementation of the project.
- Prepare a baseline assessment report reflecting an in-depth analysis by detailing the mechanisms for evaluating and monitoring project indicators.

II- ASSESSMENT METHODOLOGY

To achieve the specific objectives above, a cross-sectional study was carried out in the targeted intervention areas, in particular in the health areas of the six project health zones in the province of Kasai Oriental. The participatory methodology was used to ensure meaningful participation of project implementing partners, beneficiary populations and all other parties interested in the project. Primary and secondary data were collected using a mixed method to assess the implementation of activities and interventions planned through this project.

Primarily aimed at collecting baseline values for the indicators, the main method of collecting baseline assessment data was a quantitative household survey with children aged 0-59 months. To understand all the different attitudes and beliefs of the communities, a qualitative approach was used alongside the quantitative approach.

II. a Qualitative study

Qualitative data was collected through interviews with key informants (KIs) and in-depth interviews (IDIs) with key stakeholders, including beneficiaries, members of health facilities (HF), local implementation partners, project staff and other stakeholders to supplement the information gathered through the quantitative approach. Secondary data (documents and other important information) was reviewed to establish key information relevant to the effective implementation of the project.

II. b Quantitative survey

Quantitative data was collected and used to measure project indicators expressed in numbers or percentages (quantitative indicators). The data were obtained using a questionnaire survey on a well-defined sample of households (677 households).

This benchmark quantitative assessment focused on the following indicators:

Exclusive Breastfeeding Rate (EB):

- % of children zero to five months who are exclusively breastfed

Prevalence of acute malnutrition:

- Prevalence of acute malnutrition in children under five

Food Security :

- % of children 6 to 23 months receiving minimum dietary diversity
- Proportion of households with an acceptable food consumption score
- Average Reduced Coping Strategies index

III. I. Sampling strategy

III. I. a. Study design

The assessment was a cross-sectional two-stage cluster survey using both quantitative and qualitative data collection methods. The clusters are selected on the basis of size proportional to population (SPP). The first step of sampling was to identify the number of clusters to include in the survey, while the second step of sampling was to choose the participating households from among the sampled clusters. The main source of information was the household survey using a structured questionnaire to mothers / caregivers of infants and children aged 0-59 months.

The main tool for understanding or defining previous and current Knowledge, Attitudes and Practices (KAP) for Recommended Nutrition and Infant and Young Child Feeding (IYCF) practice was adopted from the guidelines of FAO for the evaluation of KAPs in nutrition.¹

The study assessed the basic level of the beneficiary populations of the project, on the basis of which the project will set indicators to assess the change in social behavior such as a change in knowledge or attitudes, but also the medium and long term results, such as the prevalence of acute malnutrition and the change in actual behavior and resulting practices that will be assessed at the end of the project through an assessment or final surveys that will use the same methodology.

¹ FAO. (2016) Guide pour évaluer les Connaissances, Attitudes et Pratiques liées à la nutrition 188 (89)

III. I. b. Study population

The target population of the survey consisted of mothers and / or babysitters in households with children aged zero to 59 months in the six health zones targeted by the project. Major community groups that play crucial roles in integrated community nutrition and maternal health were also part of the target study group for qualitative data collection; these are mothers and fathers of children under six months of age, older women (grandmothers / mothers-in-law), community leaders and members of IYCF support groups and community volunteers.

III. I. c. Calculation of sample size

In calculating the sample size for this study, we examined the following key factors using the sample size calculations proposed in the USAID methodology:

Table 2 : Sample size calculation formula

Percentage of change expected	5%
P1,est	9% (0.09)
P2,est	4% (0.04)
Z1- α	95% (1.64)
Z1- β	80% (0.84)
Dest	2
Number of children	600
Adjustment for non-respondents	10%
Number of children to be surveyed	667

According to the USAID / FFP methodology, 667 children across the six targeted health zones (Cilundu, Kabbeya Kamwanga, Kasansa, Tshilenge, Miabi, and Tshishimbi) should be affected by the assessment; but, during the collection, the teams went up to 677. The number of children to be included in the final sample for each targeted health zone was calculated according to the size of the population of children under five (as detailed in the table below). The number of clusters needed was estimated using the ENA application for SMART (version 11 January, 2020).

Table 3 : Population and zones targeted for data collection

Health Zone	Population (Children < 5 years)	Proportion (Children < 5 years)	Number of clusters	Reserve clusters	Number (Child per cluster)
Cilundu	41,980	15,1	5 (1 - 5)	2	83
K. Kamuanga	41,721	15,0	7 (6 - 12)	0	116
Kasansa	47,574	17,1	8 (13 - 20)	0	134
Miabi	33,668	12,1	3 (21 - 23)	2	51
Tshilenge	68,399	24,7	11 (24 - 34)	0	183
Tshishimbi	44,082	15,9	6 (35 - 40)	1	100
Total	277,424	100,0	40 (1 - 40)	5	667

III. 1. c.1. Two-step cluster size proportional (PPS) sampling

Two-stage cluster sampling was applied. First, the clusters (health zones and areas) were selected based on the probability proportional to size (PPS) to ensure that the clusters or health areas with a large number of populations have the same selection probability than health areas or clusters with a lower population. The sampling frame for the first stage of sampling consisted of selecting the villages or assessment areas, and was completed during the mapping process and the development of the sampling frame during the training of the interviewers, three days before the start of data collection. The list of updates was generated by consulting various stakeholders in the field (community leaders). The second stage of sampling was to select households from the list of participating households within the selected clusters.

III. 1. c.2. Selection of clusters

Each selected cluster was made up of a housing group; therefore, an entire village or a neighborhood in the targeted health zone or area. From an exhaustive and recent list of populations by village and by neighborhood in the targeted area, a sampling framework was prepared using the knowledge available locally on the size and accessibility of villages or neighborhoods. Thus, to prepare this sampling framework, two operations were carried out on the list of populations by village, made up of all the villages in the health area, namely:

- Removal of inaccessible villages or neighborhoods

Villages or neighborhoods with difficult access (presence of a natural barrier, insecurity in the village or neighborhood, long distance to be covered on foot with more than 25 km back and forth).

- Merger of small villages or neighborhood

Villages or neighborhoods that do not have a sufficient number of households for the size of the planned cluster (17 households) have been merged with other villages or neighborhoods to represent a single survey unit in the sampling frame. This merger was made according to the criterion of proximity.

The segmentation technique was used to narrow the area to be covered by the investigation team. The goal of this procedure is to divide into small segments and randomly choose a segment to include in the cluster. This division was made based on existing administrative units (neighborhoods, etc.), natural landmarks (rivers, roads, mountains, etc.) or public places (markets, schools, churches, etc.).

III. 1. d. Selection of Households

In all of the health zones, exhaustive household lists were not available from village heads, and populations in the cluster (or segment of the cluster) were divided by the average household size (5.1) to have a number of households per segment, and a sampling interval of five households was applied (systematic random sampling methodology). A household is defined as the set of one or more people sharing the dish of the same pot, remaining under one roof and under the responsibility of a single authority.

Only households where mothers and / or caregivers are present were visited.

III. 1. e. Selection of children to be surveyed

Data collection was effective on household children aged zero to 59 months. The MUAC and the edema sample were taken on the basis of the questionnaire designated for this purpose. For children absent during the shift of the team, the investigators made sure to return to this household before the end of the day.

III. 2. Selection and training of interviewers & supervisors

The training of interviewers and work session with supervisors were organized in three areas, each grouping two health zones. In total, 30 investigators, of minimum graduate level of study, with experience in the collection of nutritional data / KAP, and made available to SCI by the six Central Health Offices, were trained for two days with a view to allow them to familiarize themselves with data collection tools and benefit from a theoretical orientation on data collection methodology. This training was supported by a real-life capacity test to select the 24 interviewers to be retained and a pre-survey before launching the actual collection. The restitution of programming, typing and omission errors was ensured and allowed to correct the questionnaires.

To enable the interviewers to accomplish their mission in the field, they were provided with presentations on the survey's objectives, the methodology on the survey approach, and on the detailed sampling (selection of health areas, selection of households and children). Thus, nutrition and food security indicators, and essential information were shared with them. Then, there followed the theory and the practice in room on the anthropometric measurements (MUAC), the verification of nutritional edemas, the exploitation of the survey questionnaires, its translation into local language, the use of mobile technologies for data collection (Kobo Collect), the supervision of the evaluation, the distribution of investigators, the ethical provisions in the conduct of the survey, and finally the reminder on the screening of maternal and child malnutrition. At the end of the training, a simulation was carried out through a pre-survey.

III. 3. Data Collection

The start of the actual data collection covered the period from Monday 05 to 09 October, 2020. Before the training and collection phase, preparatory work consisted of carrying out a risk assessment of the activity. This involved operating and harmonizing the collection tools, configuring the questionnaires on the electronic collection application (Kobo) and finally following the required (logistical) support. The data was collected offline via the Kobo Collect mobile application, respecting barrier gestures to prevent the risk of the spread of COVID-19 during the collection process.

III. 4. Organization of supervision

Close supervision of the survey was provided jointly by six SC staff, each in a health zone, assisted by three officers from the National Nutrition Program (PRONANUT) to ensure that the collection is done in accordance with nutritional standards.

At the end of each working day, the supervisors randomly checked the quality of the data collected, ensuring the pooling. Then they clean the data before sending it to the server for storage. On average, seven households were visited per day.

III. 5. Ethical considerations

The data collection for the FFP baseline study was conducted in compliance with ethical protocols, including SCI's child protection policies to ensure the safety of all respondents as well as COVID-19 barrier measures, including wearing a mask and using hydro alcoholic gel for hand disinfection.

The protocols implemented during the baseline study include:

- Briefings on SCI's child protection policy held with the various stakeholders involved in the baseline study activities;
- Obtaining consent from mothers and children, and documenting completed and informed consents;
- Carrying-out a risk assessment (details attached) and popularization and adherence to the “Do no harm” principles, made to avoid exposing people to additional risks by the actions of the assessment;
- Adherence to the anti-harassment policy to ensure that investigators treat respondents with the utmost respect and do not harass respondents on the basis of race, color, religion, sex, sexual orientation, national origin, age, disability, marital status, parental status, political affiliation or any other basis;
- Informing respondents that participation is completely voluntary, and that they do not have to answer to specific questions if they feel uncomfortable, and that they can interrupt the interview at any time without giving a prior reason;
- All the children suffering from acute and severe malnutrition, detected according to the MUAC and / or presenting nutritional edema, were referred to the nearest health center for adequate management.

III. 6. CHALLENGES AND LIMITATIONS

- Many villages drawn randomly in the same cluster were located quite far from each other, which could increase the time and distance to be covered by the investigators. This had repercussions on the amount planned for the reimbursement of transport to facilitate the movement of the investigators in the field (with clusters / remote villages)
 - Fairly low level of adaptation for most investigators carrying-out electronic data collection (in terms of electronic data collection but also in the collection of anthropometric measurements)
 - Repetitive breakdowns of the motorcycle of the Kabeya Kamwanga HZ Supervisor
 - Some programming errors in the electronic form
 - The heavy rain having constrained the good progress of the collection on Tuesday the 6th of October, 2020
 - Difficulty charging the tablets due to lack of means (fuel and generators) in certain areas
 - Low bandwidth in some areas to submit the form with the finalized data (Internet connection)
-

- The level of education of most respondents who find it difficult to express their opinion better. The consequence of this has been an increase in the length of the interview in some areas.

Image of parents and malnourished children in sensibilization session on malnutrition in the breastfeeding area built by SC at the Cilundu General Hospital.

©Photo credit: Dieu-merci Yesse / Save The Children DRC.



3. RESULTS

3. 1. Demographic characteristics

Table 4 : Sociodemographic characteristics of the mothers or caregivers interviewed

	Cilundu	Kabeya Kamuanga	Kasansa	Miabi	Tshilenge	Tshishimbi	Together
Sex							
Female	97% (n=90)	91% (n=106)	100% (n=131)	95% (n=54)	99% (n=179)	99% (n=98)	97% (n=658)
Male	3% (n=3)	9% (n=10)	0% (n=0)	5% (n=3)	1% (n=2)	1% (n=1)	3% (n=19)
Total	100% (n=93)	100 % (n=116)	100% (n=131)	100% (n=57)	100% (n=181)	100% (n=99)	100% (N=677)
Age Groups							
14-17	2% (n=2)	0% (n=0)	2% (n=3)	2% (n=1)	1% (n=1)	1% (n=1)	1% (n=8)
18-19	8% (n=7)	3% (n=4)	5% (n=6)	4% (n=2)	3% (n=5)	7% (n=7)	5% (n=31)
20-24	28% (n=26)	28% (n=32)	17% (n=22)	35% (n=20)	25% (n=45)	25% (n=25)	25% (n=170)
25-29	22% (n=20)	24% (n=28)	35% (n=46)	18% (n=10)	23% (n=41)	24% (n=24)	25% (n=169)
30-34	13% (n=12)	14% (n=16)	22% (n=29)	23% (n=13)	19% (n=34)	27% (n=27)	19% (n=131)
35 and over	28% (n=26)	31% (n=36)	19% (n=25)	19% (n=11)	30% (n=55)	15% (n=15)	25% (n=168)
Total	100% (n=93)	100% (n=116)	100% (n=131)	100% (n=57)	100% (n=181)	100% (n=99)	100% (N=677)
Average age (in completed years)	28,5	30,7	28,4	27,9	30,1	27,9	29,1
Marital status							
Maried	99% (n=92)	97% (n=113)	100% (n=131)	95% (n=54)	99% (n=179)	98% (n=97)	98% (n=666)
Widow	1% (n=1)	3% (n=3)	0% (n=0)	5% (n=2)	0,1% (n=1)	0% (n=0)	2 % (n=7)
Single	0% (n=0)	0% (n=0)	0% (n=0)	0% (n=0)	0,1% (n=1)	0,5% (n=1)	0% (n=2)
Divorcee	0% (n=0)	0% (n=0)	0% (n=0)	0% (n=0)	0% (n=0)	0,5% (n=1)	0% (n=1)

	Cilundu	Kabeya Kamuanga	Kasansa	Miabi	Tshilenge	Tshishimbi	Together
Total	100% (n=93)	100% (n=116)	100% (n=131)	100% (n=57)	100% (n=18)	100% (n=99)	100% (N=677)
Residence status							
Resident	71% (n=66)	1% (n=1)	100% (n=131)	24% (n=14)	97% (n=175)	85% (n=84)	70% (n=471)
Returned	28% (n=26)	81% (n=94)	0% (n=0)	74% (n=42)	0% (n=0)	7% (n=7)	25% (n=169)
Internally displaced	0% (n=0)	18% (n=21)	0% (n=0)	2% (n=1)	3% (n=5)	3% (n=3)	4% (n=30)
Refugee	1% (n=1)	0% (n=0)	0% (n=0)	0% (n=0)	0% (n=1)	5% (n=5)	1% (n=7)
Total	100% (n=93)	100% (n=116)	100% (n=131)	100% (n=57)	100% (n=181)	100% (n=99)	100% (N=677)
Educational level							
Primary studies	53% (n=49)	50% (n=57)	71% (n=93)	23% (n=13)	72% (n=130)	55% (n=54)	59% (n=396)
Secondary studies	3% (n=7)	37% (n=43)	20% (n=25)	2% (n=1)	18% (n=32)	12% (n=12)	18% (n=120)
No level of education	30% (n=28)	1% (n=1)	0% (n=0)	74% (n=42)	2% (n=4)	0% (n=0)	11% (n=75)
Never attended school	9% (n=8)	10% (n=12)	8% (n=11)	2% (n=1)	8% (n=15)	33% (n=33)	12% (n=80)
Technical studies	0% (n=1)	2% (n=2)	1% (n=2)	0% (n=0)	0% (n=0)	0% (n=0)	0% (n=5)
University studies	0% (n=0)	0% (n=1)	0% (n=0)	0% (n=0)	0% (n=0)	0% (n=0)	0% (n=1)
Total	100% (n=93)	100% (n=116)	100% (n=131)	10% (n=57)	100% (n=181)	100% (n=99)	100% (n=677)
Number of children in the household							
0 children	0% (n=0)	3% (n=3)	0% (n=0)	0% (n=0)	0% (n=0)	0% (n=0)	0% (n=3)
1-2 children	20% (n=19)	16% (n=18)	24% (n=31)	14% (n=8)	31% (n=57)	32% (n=32)	24% (n=165)
3-4 children	39% (n=36)	41% (n=47)	26% (n=34)	39% (n=22)	28% (n=50)	36% (n=35)	33% (n=224)
5-6 children	27% (n=25)	24% (n=28)	31% (n=41)	26% (n=15)	28% (n=50)	28% (n=28)	28% (n=187)
7 children and over	14% (n=13)	17% (n=20)	19% (n=25)	21% (n=12)	13% (n=24)	4% (n=4)	15% (n=98)
Total	100% (n=93)	100% (n=116)	100% (n=131)	100% (n=57)	100% (n=181)	100% (n=99)	100% (n=677)
Main source of income							
Agriculture	74% (n=69)	82% (n=95)	86% (n=113)	40% (n=23)	69% (n=125)	82% (n=81)	75% (n=506)
Mining square	13% (n=12)	1% (n=1)	2% (n=3)	37% (n=21)	16% (n=30)	2% (n=2)	10% (n=69)
Trade	7% (n=6)	8% (n=10)	5% (n=7)	12% (n=7)	5% (n=10)	11% (n=11)	8% (n=51)
Other (to be specified)	4% (n=4)	4% (n=5)	5% (n=6)	4% (n=1)	8% (n=14)	2% (n=2)	5% (n=32)

	Cilundu	Kabeya Kamuanga	Kasansa	Miabi	Tshilenge	Tshishimbi	Together
Daily work	0% (n=0)	3% (n=3)	1% (n=1)	5% (n=3)	1% (n=1)	0% (n=0)	1% (n=8)
None	2% (n=2)	1% (n=1)	0% (n=0)	2% (n=1)	1% (n=1)	3% (n=3)	1% (n=8)
Assistance (NGO)	0% (n=0)	1% (n=1)	0% (n=0)	0% (n=0)	0% (n=0)	0% (n=0)	0% (n=1)
Breeding	0% (n=0)	0% (n=0)	1% (n=1)	0% (n=0)	0% (n=0)	0% (n=0)	0% (n=1)
Total	100% (n=93)	100% (n=116)	100% (n=131)	100% (n=57)	100% (n=18)	100% (n=99)	100% (n=677)
Presence of a disability							
None	94% (n=87)	95% (n=110)	95% (n=126)	93% (n=53)	98% (n=177)	98% (n=97)	96,5% (n=650)
Physical handicap	3% (n=3)	5% (n=6)	2% (n=2)	7% (n=4)	0,5% (n=1)	1% (n=1)	3% (n=17)
I do not know	0% (n=0)	0% (n=0)	2% (n=2)	0% (n=0)	0,5% (n=1)	0% (n=0)	0,5% (n=3)
Blind or partially blind	0% (n=0)	0% (n=0)	0% (n=0)	0% (n=0)	0,5% (n=1)	1%(n=1)	0% (n=2)
Deaf or partially deaf	0% (n=0)	0% (n=0)	1% (n=1)	0% (n=0)	0,5% (n=1)	0% (n=0)	0% (n=2)
Other (to be specified)	3% (n=2)	0% (n=0)	0% (n=0)	0% (n=0)	0% (n=0)	0% (n=0)	0% (n=2)
Total	100% (n=93)	100% (n=)	100% (n=131)	100% (n=57)	100% (n=181)	100% (n=99)	100% (n=677)
Children by age group							
0 to 5 months	12% (n=24)	17% (n=33)	32% (n=65)	7% (n=13)	12%(n=40)	20% (n=24)	100% (N=199)
6 to 23 months	14%(n=42)	16%(n=49)	14%(n=41)	10% (n=30)	31%(n=95)	15%(44)	100% (n=301)
24 to 59 months	15%(n=27)	19%(n=34)	15%(n=25)	8%(n=14)	26%(n=46)	17%(n=31)	100%(n=177)

Referring to Table 4; It is important to observe that overall, 677 mothers / caregivers were interviewed, of whom 3% were male. More than three-quarters are over 20 years old and the average age of the whole is 29 years old. Almost all of the people surveyed, ie 99%, are married.

A presence of returnees is observed with 25% of interviewees admitting to having been displaced because of post-conflict disturbances. 59% of mothers / caregivers have primary education, 18% secondary and 11% have no education. The average presence of children in households ranges from one to four children per household. 74% of households are farmers and 13% have as a source of income working in mining squares. 199 children aged zero to five months, 301 aged six to 23 months, and 177 aged 24 to 59 months were visited.

3. 2. Exclusive Breastfeeding (EB) and Minimum Dietary Diversity (MDD)

3. 2. a. Exclusive Breastfeeding (EB)

Table 5 : % of infants zero to five months exclusively breastfed (RiA)

	Project Zone (N=199)	Cilundu (N=24)	Kabeya Kamuanga (N=33)	Kasansa (N=65)	Miabi (N=13)	Tshilenge (N=40)	Tshishimbi (N=24)
Girls	47% (47/100)	40% (4/10)	5,3% (1/19)	75,9% 22/29	12,5% (1/8)	73,7% (14/19)	33,3% (5/15)
Boys	75,6% (68/94)	35,7% (5/14)	42,9% (6/14)	100% (36/36)	66,7% (2/3)	61,9% (13/21)	66,7% (6/9)
Total	57,8 % (115/199)	37,5% (9/24)	21,2% (7/33)	89,2% (58/65)	23% (3/13)	67,5% (27/40)	45,8% (11/24)

On average, 57.8% (N: 199) of infants under six months of age were fed exclusively breast milk during the last 24 hours before the survey. The results in the tables below show a disparity between the different health zones and rates lower than 50% (lower than the provincial average) in four of the six targeted health zones. On average, EB rates are higher in boys than in girls.

3.2.b. Initiation of breastfeeding (early breastfeeding)

Table 6 : Proportion of infants 0-23 months of age who were breastfed within one hour of birth

Health Zone	≤1 Hour after birth	1 > 23 hours after birth	< 24 hours after birth	I do not know
Together (N=276)	81% (n=223)	17% (n=47)	1% (n=3)	1% (n=3)
Cilundu	78% (n=21)	18% (n=5)	4% (n=1)	0% (n=0)
Kabeya Kamuanga	90% (n=43)	10% (n=5)	0% (n=0)	0% (n=0)
Miabi	85% (n=28)	12% (n=4)	0% (n=0)	3% (n=1)
Kasansa	79% (=62)	17% (n=13)	3% (n=2)	1% (n=1)
Tshilenge	74% (n=37)	24% (n=12)	0% (n=0)	2% (n=1)
Tshishimbi	80% (n=32)	20% (n=8)	0% (n=0)	0% (n=0)

81% (n = 223) of infants zero-23 months of age who were breastfed within one hour of birth and 17% (n = 47) between 1 > 23 hours after birth.

3. 2. c. Minimum Dietary Diversity (MDD)

3. 2. c. I. Minimum dietary practices of dietary diversity

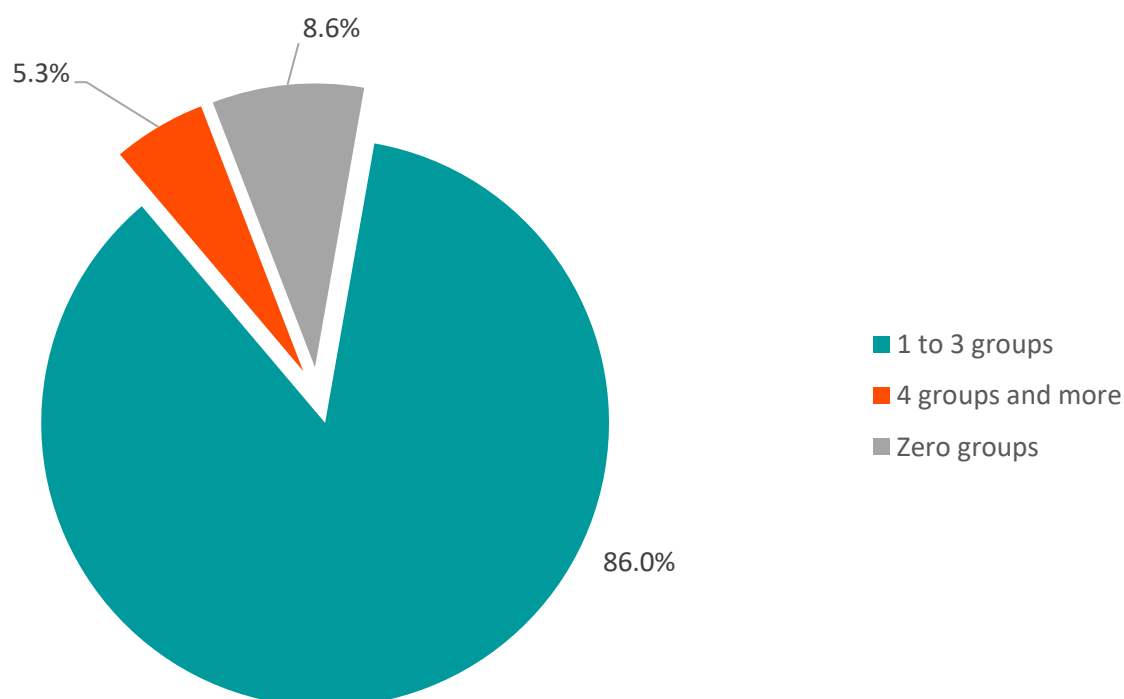


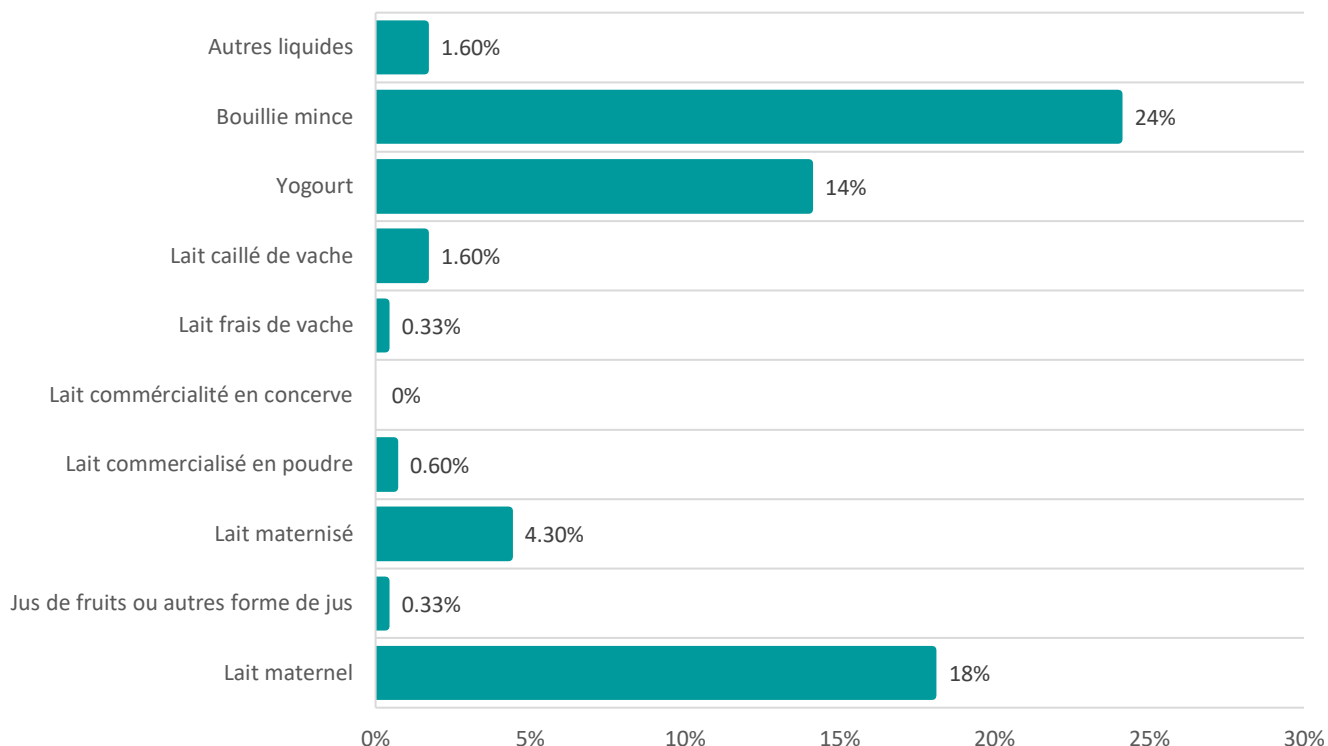
Figure 2 : Food group consumed by children aged 6 to 23 months

The results show that in the 24 hours prior to the survey, only 5.3% (n = 16) of children aged six to 23 months consumed four or more food groups. The majority, 86% (n = 259), ate between one and three food groups.

Table 7 : Trend in consumption of food groups by children aged six-23 months

Food groups	Togethe r (n=301)	Cilundu (n=42)	Kabeya Kamuang a (n=49)	Kasansa (n=41)	Miabi (n=30)	Tshileng e (n=95)	Tshishimb i (44)
Cereals, roots and tubers	66%	60%	51%	46%	97%	63%	95%
Legumes and nuts	96%	93%	100%	95%	97%	95%	100%
Dairy products	1%	0%	0%	2%	0%	2%	0%
Meat-based foods	24%	21%	4%	27%	3%	43%	18%
Eggs	6%	7%	0%	12%	0%	4%	11%
Fruits and vegetables rich in vitamin A	68%	61%	83%	80%	53%	61%	70,5%
Other fruits and vegetables.	7%	10%	0%	10%	3%	5%	13%

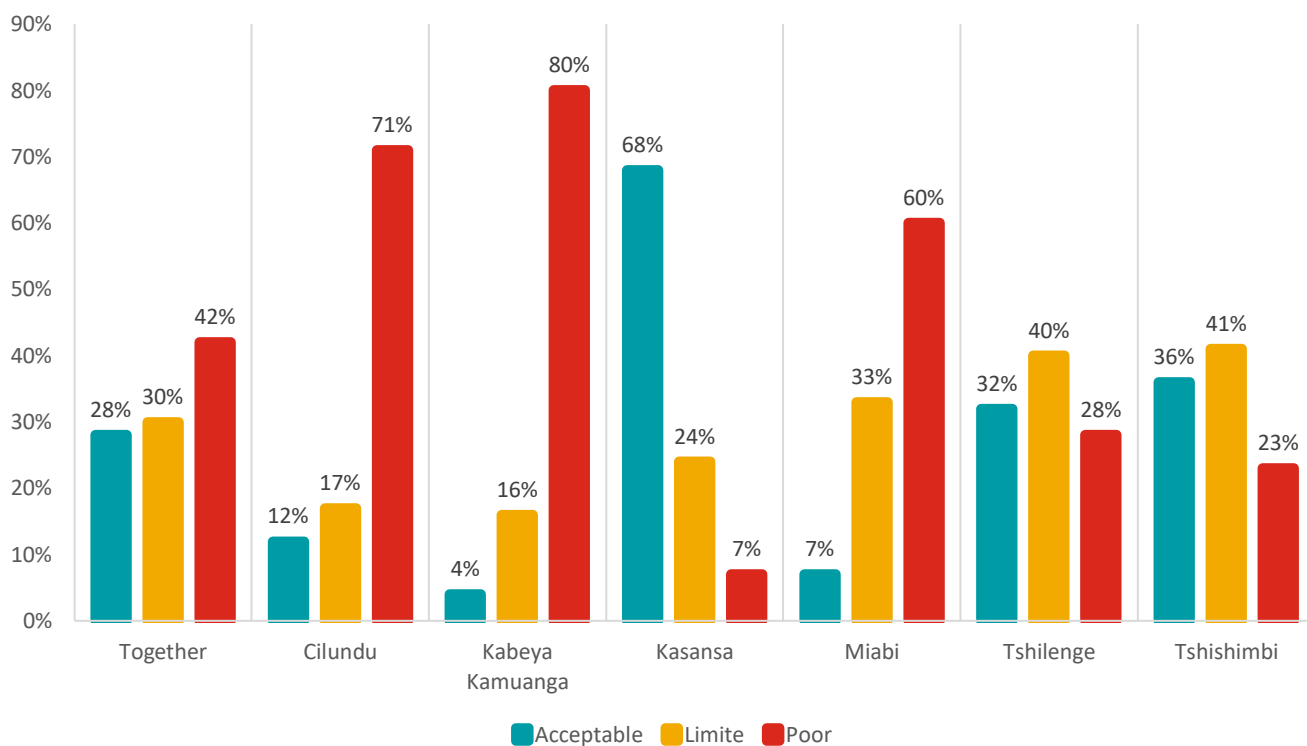
Figure 3 : Proportion of children aged six to 23 who consumed milk-based meals in the last 24 hours



3.3. Food security and livelihoods

3.3.1. Food consumption score (FCS)

Figure 4 : Food consumption score (FCS) of the households surveyed



Household food consumption score (FCS) of children aged six to 59 months (n = 301)

	Together (N=301)	Cilundu (n=42)	Kabeya Kamuanga (n=49)	Kasansa (n=41)	Miabi (n=30)	Tshilenge (n=95)	Tshishimbi (n=44)
Acceptable	28% (n=83)	12% (n=5)	4% (n=2)	68% (n=28)	7% (n=2)	32% (n=30)	36% (n=16)
Limite	30% (n=91)	17% (n=7)	16% (n=8)	24% (n=10)	33% (n=10)	40% (n=38)	41% (n=18)
Poor	42% (n=127)	71% (n=30)	80% (n=39)	7% (n=3)	60% (n=18)	28%(n=27)	23% (n=10)

3.3.2. Reduced Index of Coping Strategies (rCSI)

Table 8 : Households according to the Reduced Coping Strategies Index (rCSI)

Health Zones	No strategy		Crisis strategies I and < 10		Stress strategy >10 and < 20		Emergency strategy > 20		Total	Average Score
	# of HH	%	# of HH	%	# of HH	%	# of HH	%	# of HH	
Cilundu	0	0,0%	12	12,9%	46	49,5%	35	37,6%	93	19,75
Kasansa	17	13,0%	51	38,9%	57	43,5%	6	4,6%	131	10,08
Kabeya Kamuanga	1	0,9%	7	6,0%	17	14,7%	91	78,4%	116	28,31
Miabi	0	0,0%	12	21,1%	16	28,1%	29	50,9%	57	22,26
Tshishimbi	1	1,0%	38	38,4%	29	29,3%	31	31,3%	99	16,28
Tshilenge	3	1,7%	14	7,7%	39	21,5%	125	69,1%	181	22,02
Assessment area	22	3,2%	134	19,8%	204	30,1%	317	46,8%	677	20,46

Table 9 : Coping strategies used by the households surveyed

HZ	Percentage (%)				
	Reduces the amount of food consumed per meal	Reduce the number of meals consumed in a day	Eat less preferred and cheaper foods	Borrowing food or relying on a friend or relative for help	Restrict consumption for adults to favor small children
Cilundu	94,6%	83,9%	95,7%	65,6%	68,8%
Kabeya Kamwanga	93,1%	86,2%	88,8%	59,5%	89,7%
Kasansa	71,0%	62,6%	81,7%	49,6%	41,2%
Miabi	77,2%	47,6%	100,0%	42,1%	59,6%
Tshilenge	93,4%	88,4%	79,0%	84,0%	77,3%
Tshishimbi	77,8%	51,5%	98,0%	48,5%	46,5%
Average	84,5%	70,0%	90,5%	58,2%	56,2%
HZ Together (N=677)					

Prevalence of acute malnutrition by MUAC

Distribution of the population of children aged six to 59 months by age and sex

Table 10: Age and sex distribution of the sample

AGE (month)	Boys		Girls		Total		Ratio
	n	%	n	%	n	%	Boy; girl
6-17	40	52,6	36	47,4	76	11,1	1,1
18-29	104	58,4	74	41,6	178	26,0	1,4
30-41	99	52,9	88	47,1	187	27,3	1,1
42-53	92	55,4	74	44,6	166	24,3	1,2
54-59	46	59,7	31	40,3	77	11,3	1,5
Total	381	55,7	303	44,3	684	100,0	1,3

According to the table above, the sex ratio of the sample is 1.3 (slightly higher than the expected value of 1.2) and demonstrating a disparity between the age group of 18 to 29 months and 54 to 59 months. Details of sex distribution are shown in the same table.

Prevalence of malnutrition in children under five

Given the COVID-19 adaptation measures, data on the weight and height of children in the targeted areas could not be collected. MUAC measurement varies very little in children between six and 59 months and can therefore be used regardless of age. This measure is particularly useful for identifying children at high risk of mortality. It is also a secondary indicator of acute malnutrition. This property appears to be linked to the association between MUAC and muscle mass. MUAC was thus taken for all the children in the sample and analyzed as an indicator of malnutrition for all children aged six to 59 months.

Table 11: Prevalence of Acute Malnutrition, based on Brachial Perimeter (MUAC) by age group

Age (month)	Total n	Severe wasting (< 115 mm)		Moderate wasting (>= 115 mm and < 125 mm)		Normal (> = 125 mm)	
		n	%	n	%	n	%
6-11	28	3	10,7	3	10,7	22	78,6
12-23	113	20	17,7	13	11,5	80	70,8
24-35	178	14	7,9	35	19,7	129	72,5
36-53	292	28	9,6	41	14,0	223	76,4
54-59	79	7	8,9	14	17,7	58	73,4
Total	690	72	10,4	106	15,4	512	74,2

Due to the low quality of the data on nutritional edema, SAM rate did not take edema into account.

The result of this survey reveals a high prevalence of Acute Malnutrition of 25.8%, exceeding the acceptable threshold. This suggests a precarious situation in the project area with almost three out of 10 children having either the severe form or the moderate form. 10.4% are severely malnourished and at high risk of mortality while 15.4% are moderately malnourished. The 12-23 month and 24-35-month age groups have high rates of Acute Malnutrition, 29.2% and 27.6%

respectively. The Acute Malnutrition is higher (27.7%) in the category of children aged six to 23 months than in the age category of 24 to 59 months (25.3%)

Table 12: Prevalence of Acute Malnutrition based on MUAC and Gender

Type of malnutrition	All n = 690	Boys n = 381	Girls n = 303
Prevalence of acute malnutrition (MUAC < 125 mm)	(178) 25,8 % (22,7 - 29,2 95% C.I.)	(97) 25,5 % (21,3 - 30,1 95% C.I.)	(80) 26,4 % (21,8 - 31,6 95% C.I.)
Prevalence of moderate acute malnutrition (MAM) (< 125 mm and >= 115 mm)	(106) 15,4 % (12,9 - 18,2 95% C.I.)	(61) 16,0 % (12,7 - 20,0 95% C.I.)	(44) 14,5 % (11,0 - 18,9 95% C.I.)
Prevalence of severe acute malnutrition (< 115 mm)	(72) 10,4 % (8,4 - 12,9 95% C.I.)	(36) 9,4 % (6,9 - 12,8 95% C.I.)	(36) 11,9 % (8,7 - 16,0 95% C.I.)

Statistical analysis shows that there is only a slight difference observed in the rates of Acute Malnutrition according to the sexes, with higher rates in girls than in boys, but this is not significant ($p > 0.05$) in the area targeted by the project as shown in table 12 above.

Table 13: Prevalence of combined GAM and SAM based on MUAC cut offs by health zone

Health zone	Prevalence of GAM (MUAC < 125 mm)	Prevalence of SAM (MUAC < 115 mm)
Survey areas	25,8 % (22,7 - 29,2 95% C.I.)	10,4 % (8,4 - 12,9 95% C.I.)
Cilundu	31,9 % (24,8 - 40,0 95% C.I.)	16,3 % (11,1 - 23,3 95% C.I.)
Kabeya Kamuanga	30,7 % (23,0 - 39,7 95% C.I.)	11,4 % (6,8 - 18,5 95% C.I.)
Kasansa	18,6 % (13,7 - 24,6 95% C.I.)	9,3 % (5,9 - 14,2 95% C.I.)
Miabi	32,1 % (22,9 - 42,9 95% C.I.)	9,9 % (5,1 - 18,3 95% C.I.)
Thilenge	22,3 % (16,2 - 29,9 95% C.I.)	7,9 % (4,5 - 13,6 95% C.I.)
Tshishimbi	29,0 % (19,6 - 40,6 95% C.I.)	7,2 % (3,1 - 15,9 95% C.I.)

Result of qualitative analyses

Category of respondents

Key people	Total surveyed
Village chief	33
President CODESA	27
Religious leader	25

Leader of the Children's Listening Club	17
Chief Doctor of Zone	5
Grand Total	107

The above information shows that the majority of respondents were village chiefs followed relatively by CODESA presidents and religious leaders. Children's listeners' clubs and MCZ rank second to last and last, respectively. In relation to the health problems of the population, pregnant women and children under five in this community (or a village): most of the respondents presented malnutrition as a major problem in the community among so many other such as : fever, cholera, poor nutrition, accessibility to drinking water, no drinking water and high cost.

As for the health of pregnant women problems, the majority of responses come close to :

- Close births
- Poor diet which leads to weight loss and premature births
- Malnutrition, diarrhea, genital and urinary tract infection, malaria.

Among the problems raised concerning the health of children under five years old at the community level, the people interviewed noted in order of importance:

- Malnutrition, diarrhea diseases, malaria, anemia and ARI
- For lack of means, many children in the community are malnourished, others die from malaria and anemia,

Regarding food (in the form of a meal), what do pregnant and breastfeeding women and children under five in this community most commonly eat, for the great majority, women and children eat:

- Bread (Foufou in the local language) with green leaves as a basic meal
- Staple food (meals) : Nshima in the local language, cassava and corn flour, green vegetables, fretins (nsensa in the local language), rarely some meat.

Reasons why these foods are to a large extent is related to the low financial income of the household and the low variety of foods in the projet area according to the testimonies of the interviewees.

The same large majority of households attest that children under five mainly consume :

- Cereal-based foufou as staple foods, Cassava (foufou), Vegetables, Maize, and fruits”.

One parent said, "We only give the children under five years product of our harvest for lack of funds to diversify and increase the frequency of meals".

It was said that children often stay at home while parents go to the fields or other activities. Some parents leave the food with this child and others acknowledged that they only get the children used to eating when they return.

Furthermore, more than half of the interviewees had attested that children under six months consume more breast milk, and this is the motivation for which mothers take their children to the fields with a guardian The majority of women agreed that breast milk is important for good growth of children. For children under six months of age who stay at home, mothers said they extract the milk and store it in a clean cup.

During the qualitative appraisal, several verbatim has been noticed : “The health problems in the local language of this community are: “When the woman is thin, weight loss, malnutrition = diboba”; “Anemia = mashi majika” cikengo, “when we see a woman losing her health with signs like: weight loss, swelling of the feet; the community calls it in the local language: diboba ”; and for children “... weight loss and swelling of the feet and eyes, is called in the local language diboba”; “skin change, fatigue, cikenga”, “weight loss, fatigue, crying, NZALA , DIBOBA ”. It is mediocre health characterized by weight loss and edema in the community, called NSADI or DISAMA DIA DIBOBA”.

More statements from respondents agree that these problems affect five to seven out of 10 in their communities :

- DISAMA DIA DIBOBA seven out of 10 children under five show the signs"; with signs like " children do not play, puny, malnutrition.

When we see the child losing his health and showing stunted growth, we make the effort, despite the difficulties, to make him eat a variety of foods and increase the number of meals so that he recovers quickly.

In relation to the availability of food in this community, the main source of food is supplied locally through the fields (agriculture) for all the communities, and a small minority resorts to the purchase of basic necessities for its diet.

“The majority are in the fields; it is the same who produce corn, peanuts and other foods...”, “by working the fields of others we produce, others buy cassava, corn, vegetable oil”.

Maize and cassava are foods mainly produced in the communities as well as beans, soybeans, rice, etc. with low production. “... We buy the food, others we cultivate. We produce locally maize, cassava, beans”.

The amount spent on eating varies from 1,000FC to 17,000FC, with an average of 6,000FC (more or less 3,000FC depending on household size and socio-economic level).

A large part of the respondents confirmed to have noticed that, at a given period, they did not have enough food to eat “yes, when there is no food, even money to buy”, “yes, for lack of stock, so that when we produce food it goes directly to sale for lack of possibilities ", " no, we work a lot but the production remains insufficient because the soil is affected by drought ", " the time when society took charge of the population of my village, people neglected the field, and the effect of neglecting the field led to the people starting to suffer ”.

A part of respondents had declared that they borrow food or money from friends / neighbors, another part used daily contracts in the field to alleviate the situation, and that some sleep hungry, as explained in the responses below: "we sleep hungry", "borrow food or money", "loan, contract, work for someone", "recourse to neighboring villages".

When it comes to breastfeeding a newborn in this community, almost half of the interviewees confirmed that, according to the habits of their communities, the newborn is breastfed within an hour following childbirth "0h00 of childbirth", "Just in the hour immediately following childbirth". While most had also stated that the newborn is breastfed after childbirth without determining the "postpartum" time.

In connection with the question "When do we usually add food to what we give to a child under five years old in this community", Less than half of respondents declared that mothers add foods from six months of age “we add

the foods like corn porridge at 6 months”, “we add the foods as tea porridge at six months”; however, the majority of them had attested noticing that most mothers introduce food before five months of age "Some at three months, four months and five months, peanut flour", "after five months, but following a poor diet it is even done at three months: flour cassava, cowbell ”.

3. 4. Discussion

Demographic characteristics :

In total, 677 mothers and caregivers were surveyed. Tshilenge (27%) and Kasansa (19%) are the health zones where a large number of mothers were reached.

The sex distribution of the study population shows a minimal proportion of around 3% of male participants. Kabeya Kamwanga is the Zone with the most male caregivers encountered (8.6%). In most cases in the six health zones, the mothers of the children interviewed are aged between 20-24 years (25.1%), 25-29 years (25.0%) and 30-34 (19.4%). The average age of mothers is 29.1 years old. In the six zones, there is no significant difference between the average ages.

Regarding marital status, almost all of the mothers surveyed are married and a small proportion (1%) are widows. About seven out of 10 households visited are residents, 2.5 returnees and 0.5 IDPs. Indeed, 4% of the households visited are IDPs; they are located in the health zones of Tshishimbi and Tshilenge. The largest numbers of returnees were seen in Kabeya Kamwanga (81%) and Miabi (73.7%).

In all the households in the area targeted by the baseline assessment, children were present. More than two thirds of households have more than three children. Households with seven or more children are estimated at 14.5%. The main source of household income comes from agricultural products (74.7%), followed by work in the mines (10%) and finally income from small businesses (7.5%).

In Miabi, work in the mines is the main source of income for more than 30% of the visited households. Livestock is hardly mentioned by the visited households (0.1%). 2.5% of mothers surveyed have a physical disability. These are concentrated in Kabeya Kamwanga.

Regarding nationality, all of mothers and guardians of children (100%) are national Congolese.

Exclusive Breastfeeding and early breastfeeding

Exclusive breastfeeding is an important factor in improving the future health of children and may increase their chances of survival. An infant who is not exclusively breastfed could be at a significantly higher risk that could lead to negative consequences on the health and development of the child (such as dying from diarrhea or pneumonia) compared to a child who exclusively breastfeeds for the first six months of life. In addition, breastfeeding strengthens the immune system of infants and can protect them later in life against chronic diseases. WHO and UNICEF recommend that infants be exclusively breastfed (EB) for the first six months of life for optimal growth, health and development.²

Table 5 presents the results of the household survey on the prevalence of exclusive breastfeeding; At the question whether or not the child was breastfed in the last 24 hours prior to the survey³; Out of the 199 children aged zero-five months surveyed in six target health zones, 57.8% were exclusively breastfed the day before the survey.

The results of the multivariate analysis showed that EB is also associated with age and educational level factors. Approximately 1/3 of the mothers questioned whose age varies between 14 and 17 years old and those over 45

² OMS. (2017) [10 faits sur l'allaitement maternel](#)

³FANTA assisted USAID's Office. (2015) [Indicator list and handbook for FFP projects](#), 133(21)

WHO. 2010. [Indicators for assessing infant and young child feeding practices, Part 2, Measurement](#), 91(78)

years old do not exclusively breastfeed infants aged zero-five months for the first six months of life. Mothers with no education and those who have never attended school have a strong tendency to not exclusively breastfeed, what shows that the level of education / schooling would influence the practice of exclusive breastfeeding. The lowest prevalence of exclusive breastfeeding occurs in the health zones of Kabeya Kamwanga (21.2%), Miabi (23%) and Cilundu (37.5%), which are considered to be in the stress phase / alert according to the severity scale based on IPC / OCHA phases⁴.

Although six out of 10 newborns are exclusively breastfed; the limitations of exclusive breastfeeding in the surveyed area result mainly from the fact that the babies received pure water in the past 24 hours or other fluids; practice more revealed in Kabeya Kamwanga, Miabi and Tshilenge.

It should be noted that the prevalence of exclusive breastfeeding presented above took into account the infant who received breast milk as well as those who received oral rehydration solution (ORS), vitamins, minerals and / or medication, but have not received any other food or liquid, including water.

Initiation of breastfeeding (early breastfeeding)

The results of this assessment showed that approximately 19% of infants born in the past 24 months were delayed to the breast. This situation was typical in all six health zones, but higher in the health zones of Tshilenge (24%) and Tshishimbi (20%), more precisely in the health areas of Bakwa Mpemba and Tshilanda.

While according to the WHO, providing breast milk to infants within 1 hour of birth (early initiation of breastfeeding) ensures that the infant receives colostrum, or “first milk,” rich in protective factors, the likely reasons for late breastfeeding cited by some key informants and the literature review are: (1) the common practice of separating the newborn from the mother immediately after birth, (2) pre-lactation feeding, (3) sick mothers and / or children as well as (4) cesarean section⁵.

Referring to the accuracy of the number of hours for cases of late breastfeeding, we have found that one out of five newborns are put to the breast beyond two hours after birth. In the central village in the HZ of Cilundu, a mother testified that she had breastfed her son four days after birth as well as two others after one day in Katanda & Bena Ngandu in the HZ of Kasansa.

A head nurse specified that the place of delivery influences breastfeeding within one hour of birth. He said "Mothers who breastfeed babies within an hour of giving birth is higher for mothers who gave birth in health facilities and lower for mothers who gave birth outside of health facilities."

On average, eight out of 10 children aged six to 23 months received solid, semi-solid or soft foods during the day before the survey. WHO defines the age range for this indicator from six to eight months, but given the small sample of 55 children of this age; we redefined to include all children from six to 23 months (301).

⁴ Global NUTRITION CLUSTER. (2020) [Nutrition Humanitarian Needs Analysis Guidance](#)

⁵ International Journal of Medical and Health Research. (Mars 2018). [Cesarienne en milieu rural du Kasai Oriental \(RD Congo\): perceptions et vécu à Kasansa et à Tshilenge](#)

Minimum Dietary Diversity (MDD)

Figure 2 shows the results of the MDD indicator; the proportion of children aged six to 23 months with a minimum dietary diversity of four or more distinct food groups in the last 24 hours before the survey is 5.3% overall.

Improving infant and young child feeding practices (IYCF) plays a critical role in improving infant nutrition, health and child development and it is for this reason that the WHO recommends consuming at least four food groups. In this case, if a child is fed of at least four food groups the day before, we can assume that; in most populations, the child may have a higher probability of consuming at least one food of animal origin and at least one fruit or vegetable in addition to usual or staple foods (cereals, roots or tubers).

Multivariate analysis proves that the educational level (schooling) of primary mothers is significantly associated with a minimal dietary diversity compared to mothers who had no education. This may be because educated mothers are more likely to have more information, understand educational messages conveyed through different channels, create income-generating activities, and learn about feeding young children.

In the intervention areas of the FFP project, 68% of children aged six - 23 months ate vegetables rich in vitamin A and fruits during the last 24 hours, 96% received foods rich in iron and 24% ate foods of animal origin. Whatever the child's age and whatever the breastfeeding situation, it is found that dairy products, eggs and other fruits and vegetables were not consumed by more than nine out of 10 or 90% of children aged six - 23 months. In general, the diversity of the diet seems chronically insufficient with an average of food groups consumed by children aged six to 23 months of 2.4.

The diversity of the diet of children aged six to 23 months was determined on the basis of a 24-hour recall method and showed that all seven food groups are poorly consumed in the six health zones. Fruits and vegetables rich in vitamin A (68%) as well as legumes and nuts (96%) are the most common food consumed by children. Note that the results presented in Table 7 were developed using recommended USAID guidelines for indicators to assess infant and young child feeding practices (IYCF).⁶

Food consumption score (FCS)

Regarding the result on the food consumption score, out of the ten households visited, nearly five of them (49.2%) had an acceptable score, i.e. adequate food intake, two a borderline score (19.8%) ie. inadequate quality and three a poor score (31.0%) or inadequate quantity and quality.

⁶ WHO. 2007. [Indicateurs pour évaluer les pratiques alimentaires de nourrisson et le jeune enfant](#) 27(6)

The ACS⁷ calculation was based on a seven-day recall of the nine food groups and their standard weight (weighting) and frequency of consumption; a composite score was used as a proxy indicator for food consumption and therefore access to food.

Reduced Coping Strategies Index (rCSI)

The Reduced Coping Strategies Index counts the frequency and severity of behaviors that people engage in when they don't have enough food or enough money to buy food.⁸

It is calculated to understand the adaptation capacities of households as well as their vulnerability to food insecurity. Thus, we analyze the survival strategies (according to their frequency and severity) developed by households to cope with this phenomenon.⁹

When households face difficulties in meeting their food needs, they resort to what are called food adaptation strategies. In all health zones, the average reduced coping strategy index is low at 20.46 points.

Most of the households (96.8%) used at least one strategy; with almost half of the households surveyed (46,8%) engaging or using emergency strategies such as borrowing food or relying on help from a friend or relative as well as eating less or cheaper food.

Prevalence of malnutrition in children under five

According to the MUAC, 25.8% [22.7 - 29.2] of children suffer from Acute Malnutrition, which describes a precarious nutritional situation with high risks of mortality among young children. The analysis of the prevalence of Acute Malnutrition according to MUAC by sex shows that both girls and boys run the same risk of being affected by Acute Malnutrition in the project implementation area. There is no significant difference between the two sexes ($p > 0.05$). Analyzing a little more in detail, the analysis of the data by age group shows that, children aged six-23 months are more affected by Acute Malnutrition with a rate of 27.7% than those aged 24-59 months for which the rate is 25.3% but the difference is not statistically significant with a value of $p > 0.05$. Note that this survey was carried out during the food shortage period (August to October / November), when household food security is the most nutritionally vulnerable compared to other times of the year (January to July). The problem of the nutritional situation observed in the areas targeted by the project interventions is not in itself an immediate triggering phenomenon. The hypotheses to explain the high Acute Malnutrition rate could be the following:

- Food insecurity almost in all households due to the sale of a large part of their agricultural production;

⁷ FANTA assisted USAID's Office. (2015) [Indicator list and handbook for FFP projects](#), 133(16)

⁸ Maxwell et Caldwell. (2008) [The Coping Strategies Index : Field Methods Manual](#)

⁹ WFP. (2009), [EFSA Handbook](#) 297 (80)

- Diamond exploitation and the transport of gravel in the mines by a large majority of the population to the detriment of agricultural activities;
- Unsuitable habits and diet (consumption of unripe cassava, etc., diet not adapted to needs);
- Polygamy and unplanned and close births for mothers, young girls and adolescents;
- Access constraint to drinking water in some villages in the area;
- The low awareness of populations on essential family practices and on IYCF.

3. 5. Targeted health facility data

Figure 6 : Seniority in the HF

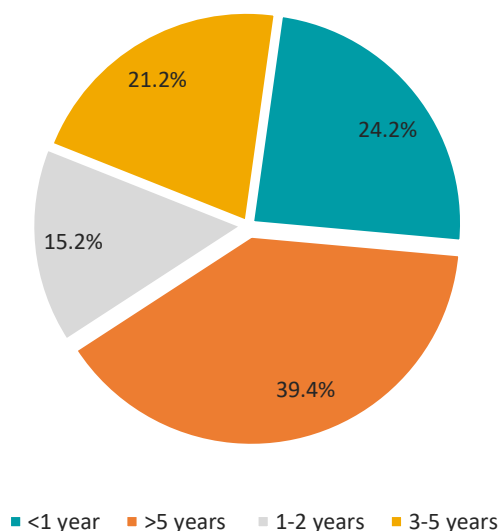
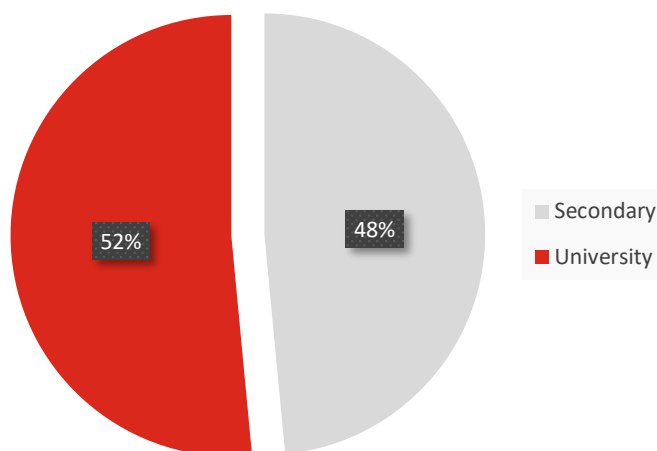


Figure 5 : HF respondent's education level



A total of 28 ITs and five ITAs were interviewed, of which more than half are of higher education. The majority of respondents in the HFs have a significant seniority in these structures.

Table 13: HF staff

	Doctors			Nurse			Midwife			CHW			Matron			Cleaners / hygienists		
	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total
Health Zone: CILUNDU																		
Makuambuyi (10)	0	0	0	3	0	3	0	0	0	0	0	0	0	4	4	1	0	1
Monka (7)	0	0	0	3	0	3	0	0	0	0	0	0	0	2	2	1	0	1
Health Zone: KABEYA KAMUANGA																		
Ciaciacia HF (11)	3	0	3	3	0	3	0	0	0	0	0	0	0	1	1	2	0	2
GRH (12)	0	0	0	4	1	5	0	1	1	0	0	0	0	3	3	2	0	2
Cincianku Hospital Center (12)	3	0	3	3	0	3	0	0	0	2	0	2	0	2	2	0	0	0
Dibula (9)	0	0	0	2	0	2	0	0	0	2	0	2	0	3	3	0	0	0
Ciondo (8)	0	0	0	2	0	2	0	0	0	0	2	2	0	2	2	1		1
Health Zone: KASANSA																		
Kasansa (7)	0	0	0	2	2	4	0	0	0	0	0	0	0	0	0	1	1	2
Kalonji south (10)	0	0	0	3	1	4	0	0	0	0	0	0	0	0	0	2	2	4
Lukalaba/est (6)	0	0	0	3	1	4	0	0	0	0	0	0	0	0	0	0	1	1
Mukongo (5)	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	1	1
Katenga (6)	0	0	0	2	2	4	0	0	0	0	0	0	0	0	0	0	1	1
Katenga (6)	0	0	0	2	2	4	0	0	0	0	0	0	0	0	0	0	1	1
Dinsanga (6)	0	0	0	2	2	4	0	0	0	0	0	0	0	0	0	0	1	1
Nsenga Nsenga (5)	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	1	1
Health Zone: MIABI																		
Central 2 (6)	0	0	0	2	1	3	0	0	0	0	0	0	0	1	1	1	0	1
Lukunza (6)	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	0	1	1
Bena mukendi (7)	0	0	0	3	1	4	0	0	0	1	0	1	0	0	0	0	1	1
Bakua cijiba HF (15)	0	0	0	3	1	4	0	1	1	8	0	8	0	0	0	1	1	2
Health Zone: TSHILENGE																		

Cilenge (9)	0	0	0	4	2	6	0	0	0	0	0	0	0	1	1	0	1	1
Cimpuma (5)	0	0	0	2	0	2	0	0	0	0	0	0	0	1	1	0	1	1
Bena bilonda (6)	0	0	0	2	1	3	0	0	0	0	0	0	0	1	1	0	1	1
Cienda HF (6)	0	0	0	2	0	2	0	0	0	0	0	0	0	2	2	0	1	1
Luamuela2 (7)	0	0	0	2	1	3	0	0	0	0	0	0	0	1	1	0	1	1
Kabimba HF (7)	0	0	0	2	1	3	0	0	0	0	0	0	0	3	3	0	0	0
Nkusu (6)	0	0	0	2	1	3	0	0	0	0	0	0	0	1	1	0	1	1
Kampaci (5)	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	0	1	1
Bena mulumba HF (6)	0	0	0	3	0	3	0	0	0	0	0	0	0	2	2	0	0	0
Kalonji kinya (6)	0	0	0	1	1	2	0	0	0	0	0	0	0	2	2	0	1	1
Health Zone: TSHISHIMBI																		
Ditalala (6)	0	0	0	2	1	3	0	0	0	0	0	0	0	1	1	0	1	1
Kamisangi (5)	0	0	0	2	0	2	0	0	0	1	0	1	0	1	1	0	0	0
Tshianga HF (6)	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	2	2
Mukeba HF (6)	0	0	0	3	0	2	0	0	0	0	0	0	0	0	0	0	1	1

Overall average number of HF staff: **10**

Of all the HF visited, the average number of staff is ten and the majority are male staff. A weak presence of CHWs and Physicians is observed. The other staff cited in the majority of HFs are receptionists.

Figure 7 : Type of services offered by the HFs visited

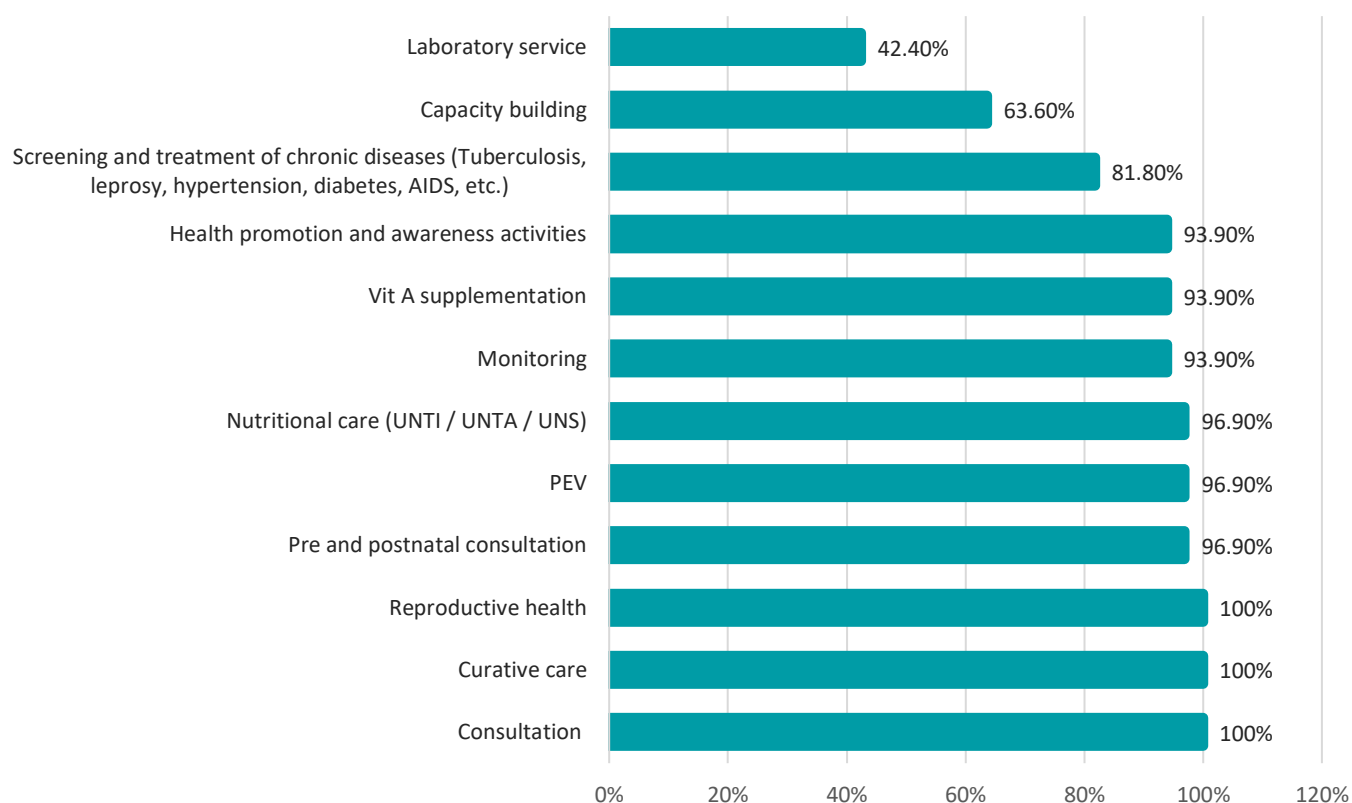


Table 14: Summary information on HF

Health area	Village	Name of the health facility	Type of facility	Number of villages covered by the HF	Population covered by the HF					Partner who supports the HF
					Men	Women	Boys (under 5)	Girls (under 5)	Total	
Health Zone: CILUNDU										
Bakwa mbuyi	Bk mbuyi	Makuambuyi	HF	8	ND	ND	ND	ND	ND	PROSANI/USAID CARE INTERNATIONAL, PAM, PROSANI
Monka	Q. Central	Monka	HF	6	12014	12504	2800	2914	30232	
Health Zone: KABEYA KAMUANGA										
Ciaciacia	Tshintomba	Health facility ciaciacia	HFR	14	5221	8740	1430	1824	17215	SC,PROSANI, THE GOVERNMENT, CORDAID,UNFPA,PAD SC
Keena nkuna	Mission	GRH	HF	7	6528	8998	730	1436	17692	
Cincianku	Bena bowa	Cincianku Hospital Center	HFR	20	6015	6518	1402	1518	15453	SC AND PROSANI USAID
Dibula	Dibula	Dibula	HF	22	3262	4065	761	948	9036	SC, APEDE, PROSSANI
Ciondo	Ciondo	Ciondo	Hf	15	2562	3221	597	750	7130	SC AND APEDE
Health Zone: KASANSA										
Kasansa	Bena masengu	Kasansa	HF	11	7936	6283	1323	992	16534	PROFS, SC, PROSANI, UNICEF, ENABEL, CORDAID, FDSS
Kalonji south	Bena ngandu	Kalonji sud	HF	27	7722	8535	1626	2439	20322	PRODS, IGA, UNICEF, SC, FDSS, PMI
Lukalaba est	Nsulu wa lomb	Lukalaba/est	HF	3	8122	10259	429	2564	21374	PRODESS , USAID
Mukongo	Lushonyi	Mukongo	HF	5	3021	3816	636	477	7950	USAID, PRODESS, CRS, CORDAID, SC
Katenga	Katenga	Katenga	HF	3	5570	7094	1526	2181	16371	PRODS, SC, PROSANI
Katenga	Katenga	Katenga	HF	3	5570	7094	1526	2181	16371	PRODS, SC, PROSANI
Dinsanga	Bena kapiamba	Dinsanga	HF	9	4037	4462	851	1274	10624	PROSANI, PRODESS
Nsenga nsenga	Bena nzeba	Nsenga nsenga	HF	9	3446	5169	863	1292	10770	SC, PRODESS, USAID,CRS
Health Zone: MIABI										
Central 2	Kakangayi	Central 2	HF	10	3680	3831	858	893	9262	UE, SC, CONOPRO, CORDAID
Lukunza	Bena kasonga 2	Lukunza	Hf	6	4037	4196	934	977	10144	UE, UNICEF, PROSANI,FDSS,PAM

Bena mukendi	Bena mbayi	Bena mukendi	HF	4	4299	4474	1001	1043	10817	UE, SC, UNICEF, PROSANI, CONOPRO, FDSS
Bakua cijiba	Bena kabesa	Bakua cijiba HF	HF	15	3458	3746	806	873	8883	SC, CONOPRO, UNICEF, UE
Health Zone: TSHILENGE										
Cilenge	Tshipuka	Cilenge	HF	5	9283	10260	1954	2932	24429	SC, UNICEF, PRODSS, FDSS
Cimpuma	Mpasu	Cimpuma	HF	8	3512	3882	740	1109	9243	SC, FDSS, PRODS, UNICEF
Bena bilonda	Ntita cimanga	Bena bilonda	HF	8	6253	6911	1316	1976	16456	UE, SC, UNICEF, FM, OMS
Cienda	Malumba	HF cienda	HF	10	9000	9000	69	69	18138	PRODS, FDSS, UNICEF, SC
Luamuella 2	Tandeur	Luamuella2	HF	3	7545	8339	1588	2383	19855	UE, UNICEF, FM, OMS, SC,
Kabimba	Tshiovu	HF kabimba	HF	7	10000	10000	150	150	20300	PRODS, FDSS, SC, UNICEF
Nkusu	Nkusu	Nkusu	HF	6	4982	5506	1049	1573	13110	SC, UNICEF, FDSS, PRODS,
Luamuella I	Cibuabua	Kampaci	HF	6	4206	4649	885	1330	11070	UNICEF, SC, FDSS, PRODS
Ba mulumba	Tshibangu	HF bena mulumba	HF	6	6000	7000	387	388	13775	SC, FDSS, PRODS, UNICEF, OMS
Kalonji kinya	Tshikala	Kalonji kinya	HF	6	4393	4855	1042	1271	11561	UNICEF, SC, PRODS, FDSS
Health Zone: TSHISHIMBI										
Ditalala	Bakua lonji	Ditalala	HF	5	4337	4514	1010	1051	10912	SC, PMI, FDSS, CONOPRO, UNICEF
Kamisangi	Bakua muanze	Kamisangi	HF	6	5689	6163	2456	2267	16575	SC, CONOPRO
Tshianga	Bena nzeba	HF Tshianga	HF	6	3420	3705	798	864	8787	SC, PMI, CONOPRO, FDSS
Mukeba	Camp postolo	HF S Mukeba	HF	7	7774	8092	1851	1926	19643	SC, CONOPRO, PMI, FDSS

All of the HF visited have an average of four support partners. Speaking of the areas in which these partners support the HF surveyed, we can cite:

- Organization of monitoring meetings
- Supervision of community care sites
- Vaccination
- Management of severe acute malnutrition, MAM and FEFA coverage and treatment (IMAM, PCIME)
- Immunization and nutritional rehabilitation

- Malaria
- Drug supply
- HIV
- Tuberculosis
- Family Planning
- Epidemiological surveillance
- Capacity building (training)

Figure 8 : Data on nutrition services (IYCF and IMAM)

Nutritional activities implemented by health facilities	Cilundu	Kabeya Kamuanga	Kasansa	Mabi	Tshilenge	Tshishimbi
Culinary demonstration	100%	60%	62,50%	100%	40%	25%
Individual counseling of FEFA's	100%	60%	90%	100%	90%	100%
Community awareness on IYCF	100%	100%	100%	100%	60%	100%
Screening for malnutrition	100%	100%	100%	100%	100%	100%
Nutritional care (UNTI / UNTA / UNS)	100%	100%	100%	100%	100%	100%

Table 15: Summary of IYCF activity data

Health Zone	Number of existing relays	Number of active relays	HF providers or staff who are trained in IYCF and / or IYCF-U	RECOs associated with the HF who have received orientation / training in IYCF and / or IYCF-U	Existence of IYCF support groups that are supported by the HF	How many IYCF support groups have been set up	How many IYCF support groups are currently functional
Makuambuyi	65	32	2	2	Yes	8	8
Monka	150	75	2	15	Yes	13	13
Ciaciacia HF	120	78	1	5	Yes	14	10
GRH	125	63	10	5	Yes	7	7
Cincianku Hospital Center	144	104	1	10	Yes	12	8
Dibula	75	38	2	5	Yes	18	12

Ciondo	151	91	2	0	No		
Kasansa	97	40	0	0	No	0	0
Kalonji south	324	196	0	0	No	0	0
Lukalaba/est	45	45	0	0	No	0	0
Mukongo	21	10	0	0	No	0	0
Katenga	60	60	0	0	No	0	0
Katenga	75	75	0	0	No	0	0
Dinsanga	120	20	0	0	No	0	0
Nsenga nsenga	120	20	0	0	No	0	0
Central 2	95	95	0	0	Yes	10	10
Lukunza	68	56	0	0	Yes	13	13
Bena mukendi	57	57	2	8	Yes	4	4
Bakua cijiba HF	89	89	0	0	Yes	15	15
Cilenge	60	49	0	0	No	0	0
Cimpuma	27	10	0	0	No	0	0
Bena bilonda	59	45	1	0	No	0	0
Cienda HF	39	39	0	0	No	0	0
Luamuella 2	86	56	1	0	Yes	1	1
Kabimba HF	45	32	0	0	No	0	0
Nkusu	32	16	0	0	No	0	0
Kampaci	25	20	0	0	No	0	0
Bena mulumba HF	36	36	0	0	No	0	0
Kalonji kinya	37	25	0	0	No	0	0
Ditalala	38	29	1	15	Yes	4	1
Kamisangi	33	20	2	15	No	0	0
Tshianga HF	28	28	1	10	No	0	0
Mukeba HF	80	47	2	11	No	0	0

Table 16: Anthropometric equipment and inputs

HF	Anthropometric equipment available for care at the HF (in quantities)			Inputs available for care at the HF level (and quantities)							
	Scale	Toise	MUAC	RUTF (# of bags)	ASPE (# of bags)	F100 (# of boxes)	F75 (# of boxes)	RESOMA L (# of bags)	AMOXICILLIN (pieces)	MEBENDAZOLE (pieces)	VITAMIN A (gels)
Makuambuyi	2	1	2	1002	6750	0	0	0	45	0	1200
Monka	1	3	3	3900	0	0	0	0	60	0	1000
Ciaciacia HF	2	1	10	2850	5250	0	6	0	6800	6700	1000
GRH	10	1	30	1200	0	0	0	0	1500	1000	3000
Cincianku Hospital Center	4	2	15	2508	0	0	5	1	30	1900	1000
Dibula	2	1	30	2006	1200	0	0	0	157	0	2500
Ciondo	1	1	0	1350	1050	0	0	0	0	0	1000
Kasansa	4	2	2	664	0	0	0	0	0	0	0
Kalonji south	2	2	2	1164	0	0	0	0	15	0	3000
Lukalaba/est	4	2	2	527	0	0	0	0	0	0	0
Mukongo	5	1	10	1500	0	0	0	0	15	0	1000
Katenga	2	1	10	7503	0	0	0	0	0	0	3000
Katenga	2	1	10	750	0	0	0	0	0	0	3000
Dinsanga	2	3	25	300	0	0	0	0	15	0	3000
Nsenga Nsenga	4	1	12	1050	0	0	0	0	12	0	2000
Central 2	1	1	10	255	5700	0	0	0	50	1200	1200
Lukunza	2	2	20	1500	6900	0	0	0	32	5000	1000
Bena Mukendi	3	3	10	1257	0	0	0	0	37	1650	697
Bakua Cijiba HF	1	1	2	0	3000	0	0	0	84	2000	1404
Cilenge	1	2	20	0	0	0	0	0	0	0	0
Cimpuma	1	2	15	0	0	0	0	0	0	0	0
Bena Bilonda	1	1	25	0	0	0	0	0	0	1000	1500
Cienda HF	3	1	3	0	0	0	0	0	7	550	1973
Luamuela 2	4	1	5	850	0	0	0	0	50	1000	1000

Kabimba HF	2	2	4	1050	0	0	0	0	40	2700	0
Nkusu	1	1	30	0	0	0	0	0	0	0	0
Kampaci	2	1	15	1100	0	0	0	0	100	0	0
Bena Mulumba HF	3	1	5	300	0	0	0	0	140	263	0
Kalonji Kinya	3	2	15	153	0	0	0	0	110	0	1000
Ditalala				0	0	0	0	0	0	4000	0
Kamisangi	2	1	10	0	0	0	0	0	30	0	100
Tshianga HF	1	2	30	3	0	0	0	0	6240	4400	72
Mukeba HF	2	2	6	0	0	0	0	0	66	300	1000

Table 17: Training data

HF	Total number of health personnel assigned to nutrition services (IMAM and IYCF)	Number of health personnel trained in IMAM		Number of health personnel trained in IYCF	
		Men	Women	Men	Women
Makuambuyi	3	2	0	2	0
Monka	3	3	0	0	0
Ciaciacia HF	3	3	0	1	0
GRH	2	1	0	1	0
Cincianku Hospital Center	3	4	0	4	0
Dibula	3	2	0	2	0
Ciondo	4	2	0	2	0
Kasansa	7	2	2	0	0
Kalonji south	4	2	0	0	0
Lukalaba/est	3	1	0	0	0
Mukongo	2	1	0	0	0
Katenga	4	4	0	0	0
Katenga	4	4	0	0	0
Dinsanga	2	1	0	0	0
Nsenga Nsenga	3	1	0	0	0
Central 2	3	1	0	2	0
Lukunza	3	2	0	1	0
Bena Mukendi	2	2	0	2	0
Bakua Cijiba HF	3	3	1	3	1
Cilenge	4	1	0	0	0
Cimpuma	2	1	0	1	0
Bena Bilonda	2	2	0	1	0
Cienda HF	2	2	0	0	0
Luamuela 2	2	2	0	1	0
Kabimba HF	3	1	1	0	0
Nkusu	3	0	0	0	0
Kampaci	2	1	0	0	0
Bena Mulumba HF	3	2	0	0	0
Kalonji Kinya	2	1	0	1	0
Ditalala					
Kamisangi	2	3	0	2	0
Tshianga HF	3	1	0	0	0
Mukeba HF	3	2	0	2	0

Figure 10 : Organization of the management of acute malnutrition

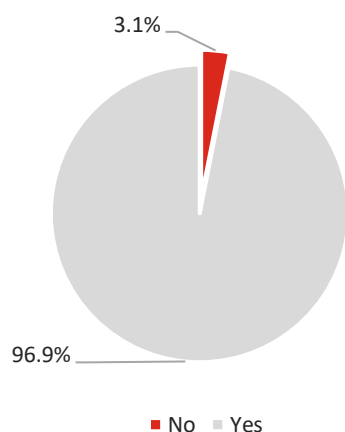
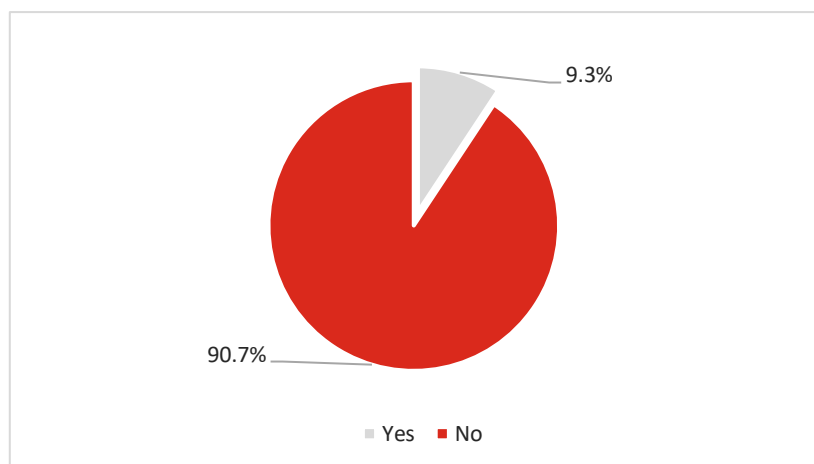


Figure 9 : HF supports other acute malnutrition care sites



96.90% of the health facilities visited provide treatment for acute malnutrition; and among them only 9.30% support other care sites.

Table 18: Number of people admitted to health facilities (including supported sites) for the management of acute malnutrition

HF	April - June 2020				July - September 2020			
	Men	Women	Boys	Girls	Men	Women	Boys	Girls
Makuambuyi	0	72	26	29	0	102	51	51
Monka	0	159	10	11	0	283	16	16
Ciaciacia HF	0	0	56	51	0	0	17	19
GRH	30	30	32	28	23	21	34	18
Cincianku Hospital Center	0	0	41	35	0	0	11	12
Dibula	0	0	53	42	0	0	48	41
Ciondo	0	0	0	0	0	0	0	0
Kasansa	0	0	21	28	0	0	18	20
Kalonji south	0	0	20	32	0	0	40	48
Lukalaba/est	0	0	19	31	0	0	27	33
Mukongo	0	0	8	14	0	0	5	19
Katenga	0	0	4	4	0	0	17	13
Katenga	0	0	4	4	0	0	17	13
Dinsanga	0	0	37	19	0	0	22	17
Nsenga nsenga	0	0	14	20	0	0	17	17
Central 2	0	0	0	0	0	0	0	0
Lukunza	0	17	49	51	0	36	23	27
Bena mukendi	0	5	5	5	0	5	5	5
Bakua cijiba HF	0	0	0	0	0	0	0	0
Cilenge	34	40	34	40	36	49	36	49
Cimpuma	30	40	30	40	12	23	12	23
Bena bilonda	0	0	32	29	0	0	44	50
Cienda HF	0	0	63	23	0	0	11	16
Luamuela2	0	0	17	26	0	0	35	34
Kabimba HF	0	0	25	22	0	0	30	23

Nkusu	20	29	20	29	25	35	25	35
Kampaci	25	33	25	33	15	25	15	25
Bena mulumba HF	0	0	19	11	0	0	13	24
Kalonji kinya	16	17	16	17	16	20	16	20
Ditalala								
Kamisangi	0	316	17	14	0	225	33	28
Tshianga HF	0	10	67	78	0	27	63	70
Mukeba HF	0	0	62	74	0	0	58	64
Total	155	768	826	840	127	851	759	830
Accumulation	2589				2567			

As shown in Table 18, during the period from April to September 2020, approximately 5,156 people were admitted to the health facilities visited in the six health zones for the management of acute malnutrition. The disaggregated data shows a reconciliation between data for the April - June 2020 (2589) and July - September 2020 (2567) periods. Over 60% of admissions are represented by children. Male children were more admitted (91.9%) against a low proportion of 8.1% of girls.

Indicator	Baseline	Initial target	Proposed target
Acute Malnutrition : is a population-based indicator and represents total acute malnutrition defined by the presence of bilateral edema and / or wasting expressed by MUAC <125 mm.	25,8%	14,5%	>10%
Severe Acute Malnutrition (SAM): SAM is defined by the presence of bilateral edema or severe emaciation expressed by an MUAC <115 mm	10,4%	4,5%	>2%
Proportion of infants who were breastfed within 1 hour of birth (Number of infants born within 24 hours and breastfed within 1 hour of birth / Number of <i>infants</i> born within 24 hours)	81%	51,9%	95%
Proportion of children aged zero-five months who are exclusively breastfed (Number of children aged zero-five months who received only breast milk during the day before the survey / Number of children aged zero-five months)	57,8%	47,3%	70%
Proportion of children aged 12 - 24 months who are still breastfed (Number of children aged 12-24 months who were breastfed during the day before the survey / Number of children aged 12 - 24 months)	Not Known	66%	60%
Proportion of children aged six to eight months who receive solid, semi-solid or soft foods (Number of children aged six to eight months who received solid, semi-solid or soft food during the day before 'survey / Number of children aged six to eight months)	68%	79,3%	75%
Proportion of children aged six-23 months who receive at least four separate food groups (Number of children aged six-23 months who received at least four food groups during the day before the survey / Number of children aged six-23 months)	5,3%	17,2	10%
Proportion of children aged six - 23 months who receive solid, semi-solid or soft foods with a minimum frequency or more (depending on whether they were breastfed or not) (Number of children aged six - 23 months who received solid, semi-solid or soft foods at a minimum frequency or more during the day before the survey / Number of children aged six - 23 months)	80%	34,6%	85%
Proportion of breastfed children aged six - 23 months who had a minimum dietary diversity score and minimum frequency of meals	5,3%	17,2%	17,2%

during the day before the survey / number of breastfed children aged six - 23 months			
Proportion of non-breastfed children aged six - 23 months who received at least two milk foods and a minimum dietary diversity score not including milk foods and a minimum frequency of meals during the day before the survey / number of " non-breastfed children aged six - 23 months	37%	<i>Not Known</i>	50%

4. CONCLUSION

The USAID / FFP project baseline assessment succeeded in highlighting baseline values for key indicators and provided rigorous evidence on the prevailing nutritional situation in the six targeted health zones (Miabi, Cilundu, Kabeya Kamuanga, Kasansa, Tshitenge and Tshishimbi) before the implementation of the activities. This report was able to collect and define these benchmarks as well as to collect a large amount of data and data on health facilities. The purpose of this survey was to establish the basis of the key indicators of the project and constitutes the basis for measuring the performance of the project over time in the six health zones. This involved in particular measuring the key indicators as defined in the logical framework of the project "Increase the nutritional security of vulnerable populations in the province of Kasai Oriental" through a baseline assessment. This benchmark assessment highlights the following indicators:

- Exclusive Breastfeeding Rate (EB): 57.8% of children zero to five months are exclusively breastfed
- Dietary diversity score (DDS): 5.3% of children aged six to 23 months receive a minimum acceptable diet
- The prevalence of severe acute malnutrition in children under five is estimated at 10.4%
- 49.2% of households have an acceptable food consumption score
- The Reduced Index of Coping Strategies (rCSI) is 20,46

5. RECOMMENDATIONS

- Advocate to put in place multisector approaches that integrate food security, health, water, hygiene and sanitation, social protection to effectively fight against chronic malnutrition, which results in stunted growth.
- Build the capacities of healthcare providers on the protocol for the management of acute malnutrition.
- Establish community dynamics by involving community leaders and key actors.