DEMOCRATIC REPUBLIC OF CONGO
Ministry of Public Health, Hygiene and Prevention

SECRETARIAT GENERAL

COVERAGE SURVEY POST INTENSIVE ROUTINIZATION OF VITAMIN SUPPLEMENTATION TO CHILDREN AGED 6 to 59 MONTHS COUPLED WITH ALBENDAZOLE DEPARASITIZATION OF CHILDREN AGED 12 TO 59 MONTHS AT THE 1st ROUND OF JUNE 2022 IN THE PROVINCE OF KASAI ORIENTAL

FINAL REPORT

By NGO MANOURE
WITH THE SUPPORT OF

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THANKS

This survey was funded by Helen Keller International to validate coverage and assess the quality of implementation of vitamin A supplementation and deworming of children 6-59 months under the intensive routine approach. community-based in the province of Kasaï Oriental, in the Democratic Republic of Congo.

The survey benefited in all stages of its implementation from the technical support of nutrition experts and several disciplines: statisticians, demographers. This is why the ONGD MANOURE and the National Nutrition Program (PRONANUT) take this opportunity to thank Helen Keller for her commitment to the search for ways and means to improve the nutritional status of the population of the DRC and more particularly of the mother-child pair.

Several people were involved in carrying out this survey. Allow us to thank them globally.
Nevertheless, we express our particular gratitude to the health and administrative authorities of the entities investigated, of the Province of Kasai Oriental for their involvement in the success of this investigation.
We also do not forget all the supervisors, team leaders and investigators who gave their heart and soul to collect quality data.
Finally, that all the households surveyed find here the expression of our deep gratitude.

PCA
Martin Luabeya Mulamba

ACRONYMS, ABBREVIATIONS AND SYMBOLS

AS	:	Health area
BCZ	:	Zone Central Office
CAC	:	Community Based Cell
COVID-19	:	Corona Virus-19
ANC	:	Prenatal consultation
SPC	:	Preschool consultation
CSD	:	Direct Cash Transfer
DPS	:	Provincial Health Division
ECZS	:	Health Zone management team
HKI	:	Helen Keller International
NSI	:	National Institute of Statistics
LLIN	:	Long Lasting Insecticide Impregnated Mosquito Net
ODK	:	Open Data Kit
WHO	:	World Health Organization
NGDO	:	Non-Governmental Development Organization
PECS	:	Post Campaign Coverage Surveys
PNMLS	:	National Multisectoral Program for the Fight against HIV/AIDS
HIPC	:	Probability Proportional to Estimated Size
PRONANUT	:	National Nutrition Program
RAP	:	Participatory Action Research
RECO	:	Community Relay
ground floor	:	Democratic Republic of Congo
SVA/DM-A	:	Vitamin A Supplementation and Mebendazole and Abendazole Deworming
UNICEF	:	UNICEF
Lives	:	Vitamin
ZD	:	Enumeration Area
SZ	:	Health Zone

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EXECUTIVE SUMMARY

Since January 2021, Helen Keller International has been supporting the Democratic Republic of Congo in vitamin A supplementation and Albendazole deworming for children aged 6 to 59 months, twice a year, through the intensive routine strategy, at community basis. This support concerns 1,125 health areas in 85 urban and rural health zones, in three administrative provinces (Kinshasa, Kongo central and Kasai Oriental).

For the year 2021, the first round of this intensive routine took place in July 2021 in the provinces of Kinshasa and Kongo Central, in August 2021 in the province of Kasaï Oriental. The second intensive, community-based routine for vitamin A supplementation, coupled with deworming, was organized in November-December 2021, in the provinces of Kinshasa and Kongo Central, and in December 2021-January 2022, in the province of Kasai Oriental, in a health context marked by COVID-19.

In 2022, after the first round of intensive routinization, a survey to assess the coverage of Vitamin A supplementation and Deworming activities was carried out in the two weeks following the community-based routinization strategy, i.e. from July 7 to 18, 2022 in the 19 Health Zones of the province of Kasai Oriental.
To this end, 925 households were surveyed and information on vitamin A supplementation and deworming was collected from 1,557 children aged 6-59 months. The survey covered both quantitative and qualitative aspects.
The main results of this survey are given in the following lines.

- **Coverage of Vitamin A Supplementation and Deworming**

Survey results show that overall 91.1% of children were supplemented with vitamin A

About 90% of children received the deworming dose according to this study.

- **Socioeconomic characteristics of respondents and households**

Overall, 32.9% of those surveyed have liberal activity as their main occupation, followed by farmers who represent 24%, the inactive 18.7% and housewives 16.5%, the employee represents 7.5 %.

Agriculture remains the main activity of respondents in rural areas (54.9%) while the majority of respondents in urban areas have a liberal activity as their main activity (34.9%).

According to the assets owned by households, around 49% of respondents are poor, 17% have an average level and the rich covers 34% of respondents.

In rural areas, very poor and poor households represent 76%, while in urban areas, very rich and rich households represent 49%.

- **Access to health services**

Overall, 83.9% of households indicated that the nearest health facility is in the village or residential area.

- **Health services sought by households**

Vaccination is reported by 39% of households, followed by growth monitoring which is reported by 34% of households, Vitamin A supplementation represented 21% and other services 6%.

- **Communication strategy**

The communication strategies used for information on vitamin A supplementation and deworming having had the most success, were conveyed through community relays (71.2%) followed by health personnel (13%) and other communication channels represent only 15%.

- **Knowledge of the importance of vitamin A and deworming**

87.5% of people/parents were able to correctly identify the vitamin A capsule

45% of people/parents have a good knowledge of the age of vitamin A administration

Only 38.5% of people/parents correctly decided on the frequency of vitamin A administration

72% of people/parents have a good knowledge of the usefulness of vitamin A for the health of children (38.3% for protection against diseases/anaemia, 19% for promoting growth, 9.7% Helps eyesight and 4.5 increases appetite

95% of people/parents said that the dewormer eliminates worms.

- **Results of the qualitative survey**

In general, the interviews with the various actors revealed as strengths, in particular the regularity of the partners in the supply of the various inputs, mainly vitamin A in large quantities and available at all levels of the health system (province, health zone , health and community area and the main weaknesses observed are as follows:

- Weak coordination between the various partners which materializes at times when the same inputs are granted during the same period by two or more partners while other inputs are out of stock (albendazole);

- Insufficient logistical means, (materials for protection against covid-19, not enough fuel for the deployment of inputs in the most distant areas on time, etc.

- Low awareness of the population and mobilization of stakeholders.

CHAPTER I: CONTEXT AND JUSTIFICATION

In the Democratic Republic of Congo, vitamin A deficiency is a public health problem. Vitamin A supplementation is recommended for infants and children 6–59 months of age as a public health intervention to reduce child morbidity and mortality (strong recommendation).

This situation, which has persisted for more than two decades, is marked by high levels of malnutrition in its various forms. Indeed, according to the results of the MICS 2018 survey, 7% of children suffer from wasting, which represents approximately 2,000,000 children, and approximately 42% are affected by chronic malnutrition, representing more than 6,000. 000 children with growth retardation whose future is mortgaged. Finally, 23% of children are underweight. In children, the combination of underweight, micronutrient deficiencies (iron, vitamin A and zinc) and sub-optimal breastfeeding is responsible for 7% of deaths and 10% of the total disease burden (WHO 2011).

Vitamin A deficiency alone is responsible for almost 6% of deaths of children under 5 in Africa and 8% of these deaths in Southeast Asia. Vitamin A supplementation in children aged 6–59 months living in developing countries is associated with a reduced risk of death from all causes and a lower incidence of diarrhoea.

Faced with such a situation, the DRC must lay a solid foundation to achieve the sustainable development goals in the field of nutrition, in accordance with the options identified in the PNDS 2016-2022. Opportunities already exist in this direction, in particular the existence of a national nutrition policy, actions recorded in the national strategy on infant and young child feeding as well as the existence of care protocols acute malnutrition. Nutrition interventions are carried out with the support of partners in the areas of prevention, treatment and promotion to fight against major nutritional problems in the DRC.

Given the complexity of the causes of malnutrition, improving nutritional status also requires the active participation of other sectors that have an impact on the determinants of this status (health, education, agriculture, private sector and public sector, …).

The presence of both national and international NGOs working in the nutrition sector (with nutrition support funding of more than 85%), the availability of specialized and qualified personnel in nutrition as well as the existence health sector support projects that take the nutrition component into account are all opportunities that PRONANUT is counting on to boost the implementation of essential nutrition interventions in the Health Zones.

It is in this perspective that since January 2021, Helen Keller International has been supporting the Democratic Republic of Congo in vitamin A supplementation and Albendazole/Mebendazole deworming for children aged 6 to 59 months, twice a year. , through an intensive community-based routinization strategy. To date, this support concerns 1,125 health areas in 85 urban and rural health zones in three administrative provinces: (Kinshasa, Kongo central and Kasai Oriental).
It should also be noted that Hellên Keller International is not only in its first experience in the DRC, because this organization worked there from 2005 to 2016.

For the year 2022, the first round of vitamin A supplementation for children aged 6-59 months and mebendazole/Albendazole deworming for children aged 12-59 months through an intensive community-based routine strategy took place in June 2022 in the provinces of Kinshasa, Kongo Central and Kasai Oriental, in a health context marked by COVID-19.

Following this distribution activity, PRONANUT with the technical and financial support of the INS, and Helen Keller International recruited the Manoure firm to conduct an intensive community-based post-routinization coverage survey in order to assess the quality the implementation of vitamin A supplementation activities for children aged 6 to 59 months and to draw relevant lessons for effective decision-making.

1.1. Evaluation objectives

1.1.1 General objective

The general objective of this survey is to assess the quality of the implementation of vitamin A supplementation and deworming of children aged 6-59 months according to the approach of intensive community-based routinization in the province of Kasai. Oriental and to draw relevant lessons for effective decision-making.

1.1.2 Specific objectives

Specifically, in the province of Kasai Oriental, there was talk of :

- Measure the effective coverage of VAS and deworming during the community distribution of vitamin A and deworming in June 2022;
- Determine the main reasons for non-administration of VAS/DM-A;
- Determine the level of knowledge, on the one hand of parents, health workers and community actors (RECO and CAC members) on the benefit of VAS;
- Identify the strengths, weaknesses, constraints and lessons learned from community distribution of vitamin A and deworming;
- Formulate/Propose strategies and actions to be taken to improve the activities of the VAS/DM-A.

1.2. METHODOLOGY

1.2.1. Type of study

This evaluation focused on two types of studies:

- **A quantitative, cross-sectional study of community-based intensive post-routinization coverage, with two-stage cluster sampling, WHO-type stratified (2018).** The clusters were drawn randomly within the stratum in accordance with the probability proportional to the estimated size (PPTE) method of the population in urban and rural areas.
- **A qualitative study consisting of individual interviews and focus groups with structures and actors implementing vitamin A supplementation and deworming activities** (health workers and community distributors who are members of CAC/RECO) and households (fathers and mothers and/or babysitters).

1.2.2. Study period

The study was carried out over a period of four (04) weeks during the month of July 2022 and the field data collection took place from July 07 to 18, 2022.

1.2.3. Target population

The target population for this study varies according to the type of information to be collected.

1.2.4. Quantitative study

It was carried out according to a single component:

Household survey

It made it possible to assess the level of knowledge, attitudes and practices of households with regard to vitamin A supplementation and deworming, in order to assess the rate of coverage post intensive community-based routine, of VAS / DM -A in households.

Target concerned : Households with children aged 6 to 59 months living in the 19 Health Zones having benefited from community distribution of vitamin A and deworming with the intensive community-based routine approach in June 2022.

Inclusion criteria: All households in the study area with at least one child aged 6 to 59 months at the time of the first visit to the intensive community-based routine of VAS-DM-A.

Non-inclusion criteria: eligible households where there are no adult relatives present at the time of the survey and/or refusing to participate in the survey by not giving their informed consent.

1.2.5. The qualitative survey

Type of study : it is a Participatory Action Research (RAP) consisting **of individual, directive and semi-directive interviews** with the actors involved in implementing VAS/DM-A activities and **focus groups** in order to Assess performance, quality of implementation of SVA/DM-A activities and identify strengths and weaknesses in order to document best practices for corrective actions.

qualitative study was carried out in the following 4 parts:

a) Individual interviews with implementation structures:
Target concerned by **the individual interviews** : the National Nutrition Program (the Director and Head of the Standardization Division), Helen Keller International, UNICEF and the Provincial Health Division of KASAI ORIENTAL.

b) Directive and semi-directive interviews: Health Zones (Health Zone Management Teams) and health area service providers (AS) attached to the sampled clusters; involved in intensive community-based VAS/DM-A routine activities.
Target concerned : Health providers in health areas (AS) attached to the sampled clusters and involved in the activities of intensive routinization of VAS/DM-A, on a community basis.

Inclusion criteria : All health providers who participated in the June 2022 intensive, community-based VAS/AMD routineization (eligible) of the study area and present at the time of collection.

Non-inclusion criteria : health providers who participated in the June 2022 intensive, community-based VAS/AMD routineization (eligible) from the study area who refused to participate in the survey by not giving their informed consent.

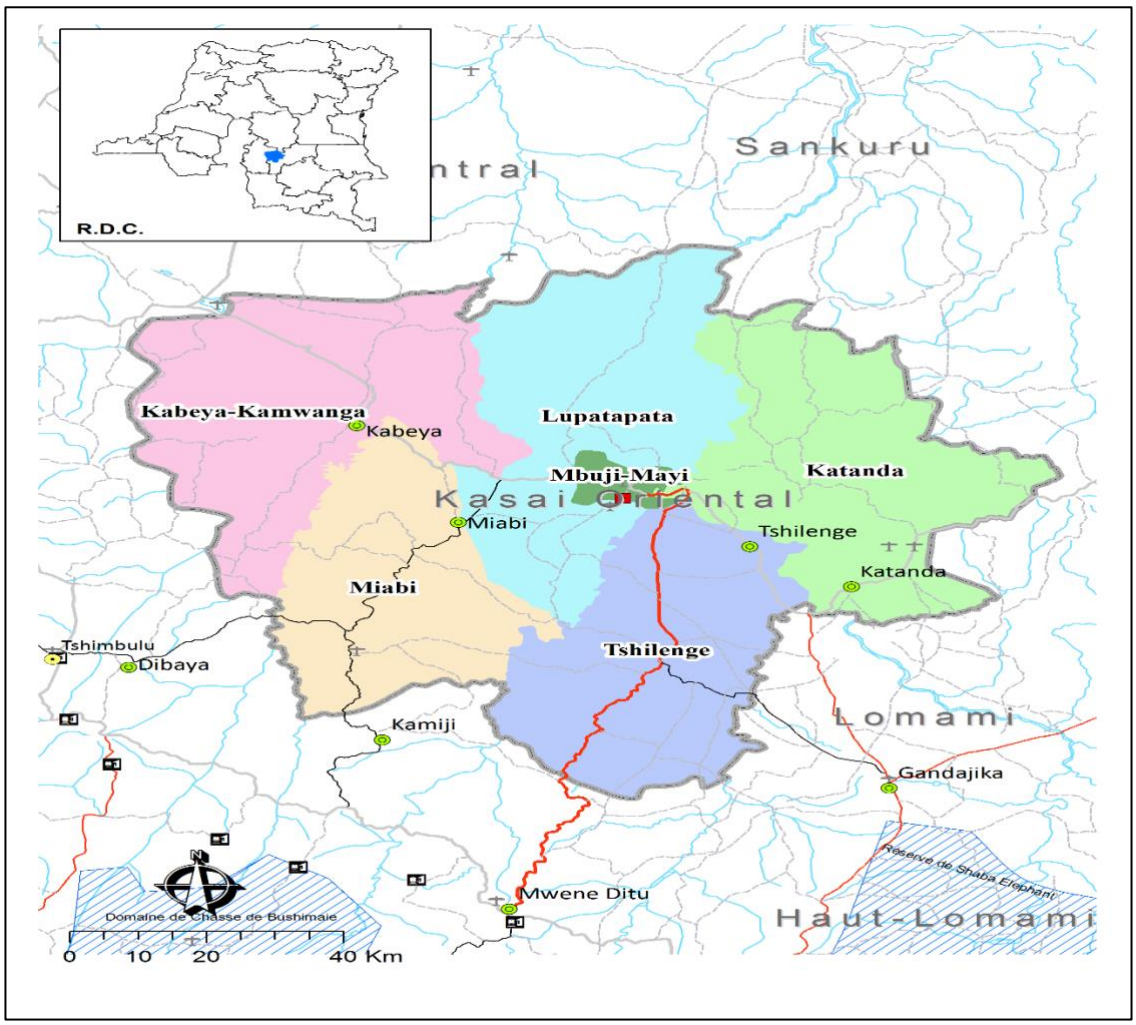
c) focus-group with community distributors (Members of CAC/RECO)
It was carried out with members of the CAC/RECO attached to the sampled clusters and who had participated in the intensive community-based routine of VAS/DMA.

Target of concern : CAC/RECO members working in the sampled clusters due to one CAC/RECO member per cluster involved in the implementation of intensive community-based routinization, vitamin A supplementation and deworming children aged 6-59 months (June 2022).

Inclusion criteria : All CAC/RECO members who participated in the June 2022 intensive, community-based VAS/DMA routine (eligible) of the study area and present at the time of collection.

d) focus-group with parents (fathers/mothers) of children benefiting from SVAD
Target group concerned : parents of children who benefited from VAS/DMA activities in June 2022 (eligible) in the study area who participated in the survey without giving their informed consent.

1. 2.6 Map of Kasai Oriental Province with Health Zones



1. 2. 7 Sampling

Table n°1 : Sampling

HEADINGS	INDICATORS	Estimate Sample	PECS (date)
Enumeration phase	*Number of Clusters*	77	77
	Number of households enumerated		19601
	Number of eligible households		7455
Household coverage	*Number of ELIGIBLE households surveyed*	852	925
	Number of REFUSALS of eligible households	10%	0
	Number of eligible children surveyed		1556
Population estimate & Children aged 6 to 59 months	*Number of eligible persons supplemented only with Vitamin A*		1426
	Number of eligible Dewormed		1241
Qualitative survey	*Number of interviews*	11	11
	Number of focus groups	12	12

1.2.8 Ethics Committee

The survey protocol was approved by the Ethics Committee according to approval letter n°HKI.KIN/ADMIN/008/12/2021 of 23/12.2021. Before the start of data collection in the field, the local and administrative authorities were informed by official letter of the survey. The supervisors and/or team leaders went to the district/village chiefs to explain to them the objectives of the survey. In households, the informed consent of heads of household and/or respondents was also required before administering the questionnaire.

1.2.9 Recruitment and training of field agents

Forty-six (46) candidates were pre-selected on the basis of their skills, their experience in socio-demographic or health surveys, their knowledge of the enumeration areas and the language spoken in these areas and their ability to use tablets but also their level of education.
A theoretical and practical training session was led by the members of the Coordination Committee (the Helen Keller International team, the team of experts from Manoure, INS and PRONANUT). This training session, which lasted 4 days, including 3 days devoted to theoretical training, 1 day to practice, was to enable field agents to master the process of counting and drawing households, to understand the questionnaires and the methods of administration. and filling via the tablets but also to become familiar with behavioral and communication techniques.
During the training, the following modules were covered: the Objectives and expected results of the training, the strategy of intensive community-based routinization, the Methodology of the study, the presentation of the data collection tool and the ODK application, the examination of various questionnaires and household interview guides as well as the roles and responsibilities of field staff .
In addition to these technical aspects, other points were discussed, including:

- Preparation of materials
- Pilot survey
- Restitution of the pilot survey and reframing of the gray areas and difficulties noted
- Practical arrangements for the deployment of investigators in the field (delivery of equipment, and other logistical arrangements)

At the end of the training, forty-one (41) interviewers were selected on the basis of a written test whose scores were combined with the performance analysis during the field evaluation during the pilot survey and divided into 10 teams made up of a team leader and two investigators. In addition, five supervisors were selected from among the interviewers who showed the best skills at the end of the training period, ie 1 supervisor for 2 teams.

1.2.10 Pilot survey

To test the survey process, field workers practiced carrying out all field activities during a pilot survey conducted on the last day of the training. among households in localities not included in the sample of the Health Zone of Lubilanji, in the administrative commune of Dibindi.
The participants were grouped into teams of 3 people according to the configuration planned by the study and visited 6 to 10 households. The supervision of the pre-survey was ensured by the trainers and the members of the steering committee.

During the pretest, each team had to implement the different phases of the collection process, in particular: locating the cluster, presenting the study, counting and selecting households, and administering the various questionnaires.
A restitution session was organized after the pre-test in order to identify all the problems encountered and provide solutions before the start of the actual data collection.

1.2.11 Document review

Several researches have established that in the country where mortality and vitamin A deficiency rates are high, vitamin A supplementation (VAS) alone distributed once or twice a year and to at least 80% of children aged 6 to 59 months, can contribute to a reduction in mortality of up to 24%.
In addition to the malnutrition to which the affected children pay a heavy price, the children of the DRC are also confronted with the problems of micronutrient deficiencies, especially that of iodine translated here by 80.9% availability of iodized salt in households (MICS 2017-2018), and vitamin A deficiency (61.1%), which is far above the severity threshold set at 20% (PRONANUT 1998). The prevalence of anemia in the DRC, 60% (EDS 2013) in children aged 6 to 59 months and nearly 90% of children have at least one intestinal worm (Anemia survey, PRONANUT, 2005).

In 2015-2016, Child Health Days (JSE) replacing campaigns gave coverage of over 85%, which guarantees the impact of vitamin A on infant mortality.

From 2017 to 2018, the two JSE approaches and the RPR (routine EPI reinforcement) were used and gave a coverage of 76%, below the target.

In 2019, the new approach which is the routinization of the SVA is put in place following the significant gradual decrease in funds. It is a development strategy. This is being piloted for two years until 2020. Routine data reported by health facilities during child growth monitoring activities through the Preschool Consultation (CPS) not exceeding 25 %, and those of the routinization of VAS/DM-A not reaching the international objective of 80%, it was considered necessary to think of a strategy which would lead to improving the coverage of VAS/DM-A at at least 95% according to the objectives set by the country.

According to the results of the Demographic and Health Survey (EDS II 2013-2014), in Kasaï-Oriental, 37.8% of children under 5 suffer from chronic malnutrition and 47.7% of children aged 12 to 23 months are not fully vaccinated. 57% of the population does not have access to drinking water and 82% to hygienic latrines.
Good vitamin A nutrition is able to reduce mortality in young children by 24% (WHO). Based on this evidence, the DRC has initiated and very successfully carried out vitamin A supplementation for

children aged 6 to 59 months. This supplementation makes it possible to reach more than 9 out of 10 children twice a year, six months apart.
More than two decades ago, the DRC, is hard at work using various strategies to distribute vitamin A to children from 6 to 59 months with the support of its partners.

In view of the above and at the request of PRONANUT , Helen Keller International, has been committed since January 2021 to provide support to the Congolese Government for Vitamin A supplementation and deworming with mebendazole / albendazole respectively for children aged 6 - 59 months and 12 to 59 months by supporting three sectioned pilot provinces, namely the city-province of Kinshasa, Kongo Central and Kasaï-Oriental.

These three (3) provinces used the “Intensive Routinization” approach with distribution of vitamin A and deworming, community-based, twice a year in order to cover all the target children. This approach involves community participation platforms: Community Animation Cells (CAC), Health Committees (CODESA) and Development Committees (CODEV, following the existing organization in the Health Area (AS).
The Registered Nurses of the Health Areas, the Management Teams of the Health Zones, the experts of the Provincial Divisions concerned and the experts of PRONANUT at the central level provide supervision during the administration of vitamin A and deworming.

After the first round in June 2022, a coverage survey is planned, in the province of Kasai Oriental, within two weeks of the administration of vitamin A to children aged 6-59 months and deworming to children aged 12-59 month.

To conduct this coverage survey, Helen Keller signed a contract with the MANOURE firm to conduct an evaluation study of intensive post-routinization coverage of vitamin A supplementation coupled with deworming of children aged 6 to 59 months. This evaluation also took into account the quality of the implementation of these interventions in the 19 health zones of the province of Kasaï Oriental.

1.2.12 Field data collection

Data collection went well overall. It was carried out from July 7 to 18, 2022 by 10 teams of three surveyors each in 77 clusters sampled in the 19 Health Zones of Kasai Oriental province.

The data was collected using questionnaires in an electronic version downloadable on tablets using the Android operating system. The collection was done with the tablets via the ODK collection application version 1.22.4 and was preceded by the phase of counting and drawing households.

The interviewers and team leaders were responsible for filling out the household count and selection questionnaires as well as administering the household questionnaires, while the supervisor was responsible for the quality control questionnaires and the day-to-day management of the teams under his supervision. responsibility.

1.2.13 Collection monitoring and follow-up.

Supervision and monitoring of the progress of the entire process were provided by different people and at various levels: the field supervisors, the steering committee made up of experts from Helen Keller International, INS, Pronanut and Manoure ; to ensure data quality.
The strategy used consisted of close supervision. A total of 5 field supervisors were deployed, with one supervisor for two teams. These field supervisors were in the field every day with the teams assigned to them. They were supported by the members of the steering committee, made up of experts from Helen Keller International, INS, Pronanut and Manoure involved in the survey.

Close supervision made it possible to identify errors, correct shortcomings and assess the performance of the teams. The telephone contact between the teams and the coordination made it possible to gradually resolve the problems identified. On the other hand, the various meetings also focused on the information shared on the Helen Keller Intl server. Particular emphasis has been placed on sending data. The data sent is used in real time by the consultants to produce a data quality

monitoring dashboard on content and form. This dashboard gives a summary of the work done and the errors made by team, by interviewer and sometimes by supervisors.

1.2.14 Data managment

Tablets were used to facilitate data collection and ensure data quality. The forms, once checked and validated by the team leaders, are sent to Helen Keller's ONA server. These data, gradually concatenated, were checked by the team of consultants. The consultants produced a daily data quality monitoring dashboard shared with the supervisors who in turn shared it with their respective teams. This made it possible to correct the inconsistencies observed while the teams were still in the field and to write the clearance report at the same time.

1.2.15 Data processing and analysis

A team of analysts has been put in place to check the consistency of the responses and the completeness of the questionnaires in the database; clean up the file and produce statistical tables. The databases were obtained in STATA version after their concatenations. These bases were then audited. At the end of the complete clearance, a definitive pivot file was created and the latter allowed the conduct of the data analyzes and the drafting of this report.

It should also be noted, during this stage, that the weighting coefficients by health zone were calculated.
This weighting was calculated as follows:

1. Probability (A) that a EA of any health zone is selected
   - A= $\text{Probabilité que la grappe ait été sélectionnée} = \frac{\text{Nombre total de ZD tirées dans la zone de santé}}{\text{Nombre total de ZD dans la zone de santé}}$
2. Probability (B) for a segment to be selected in a selected DZ at the first degree
   - B =$\text{Probabilité que le segment ait été sélectionné} = \frac{\text{Nombre total de segments tirés}}{\text{Nombre total de segments}}$
3. Probability (C) for a standard household to be selected in a selected ZD at the first stage
   - C = $\text{Probabilité que le ménage ait été sélectionné} = \frac{\text{Nombre total de ménages enquêtés dans la zone de santé}}{\text{Nombre total de ménages éligibles dans la zone de santé}}$
4. Probability (p) of inclusion of the household in the sample
   - p= A*B*C
5. Weighting coefficient (C) by health zone
   - C=1/p

After this processing step, the bases obtained were used for the tabulation and the production of the report.

1.2.16 Encountered difficulties

They are the following:

- Unavailability of households occupied with harvesting work;
- The population data provided by the DPS does not correspond with the reality on the ground; inaccuracy of the numbers provided by the DPS and those coming from the field
- Displacement of certain people in their respective households;
- Low coverage or absence of internet network to send data to the server in real time;
- Unavailability of Area Chief Medical Officers in their offices, because they were in training.

CHAPTER II: MAIN RESULTS OF THE STUDY

2.1. RESULTS OF HOUSEHOLD SURVEY DATA ANALYSIS

2.1.1.Socio-demographic and cultural characteristics

Table 2.1: Distribution of respondents by sex, age and level of education according to place of residence

SOCIODEMOGRAPHIC CHARACTERISTICS OF PERSONS INTERVIEWED IN THE HOUSEHOLD		RESIDENCE		
		Rural (%)	Urban (%)	Together (%)
Gender of Respondents	Male	32.6	17	23.3
	Feminine	67.4	83	76.7
	Total 100 100 100			
Age group of respondents	Under 25	19.5	27	24
	25-34 years old	37.1	37.1	37.1
	35-44 years old	22.5	24.6	24.8
	45-54 years old	12.8	7.2	9.4
	55-64 years old	5.8	2.5	3.8
	65 and over	2.3	1.6	1.9
	Total 100 100 100			
Educational level of respondents	None	8.3	2.2	4.7
	Primary	56.9	23.1	36.7
	Secondary	34.7	71.8	56.8
	Superior	0.1	2.9	1.8
	Total 100 100 100			

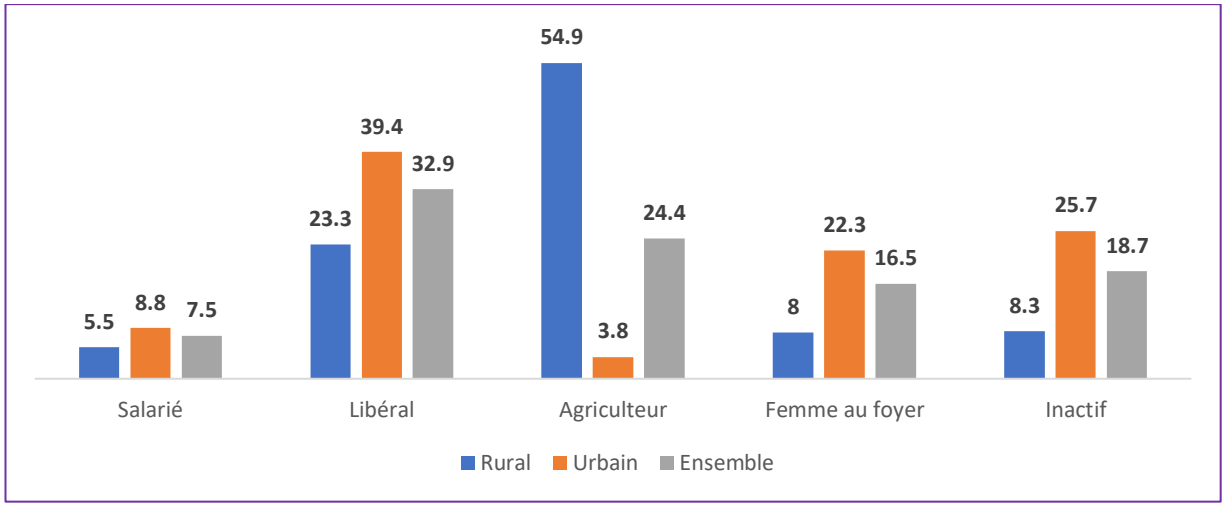
- Analysis of Table 1.1 shows that overall, 76.7% of respondents are female compared to 23.3% of males. With regard to the area of residence, we observe that regardless of the area, female respondents are the most represented. They are 67.4% against 32.6% of men in rural areas and 83% of women against 17% of men in urban areas. This difference could be explained by the fact that the custody of children in the age groups concerned by this study is mainly entrusted to women, and mainly to the mother.

- Regarding the age group, we observe that respondents aged 25-34 are the most represented with approximately 4 respondents out of 10 (37.1%). The trend observed overall is the same according to place of residence.

- Considering the level of education, respondents with a secondary level are the most represented (56.8%). They are followed by those at the primary level (36.7%). Respondents with no level and those at a higher level are poorly represented with (4.8%) and (1.8%) respectively. According to the area of residence, respondents with no level and those at the primary level are the most represented in rural areas with 8.3% and 56.9% against 2.2% and 23.1% respectively in urban areas.

2.1.2. Socioeconomic characteristics of surveyed households

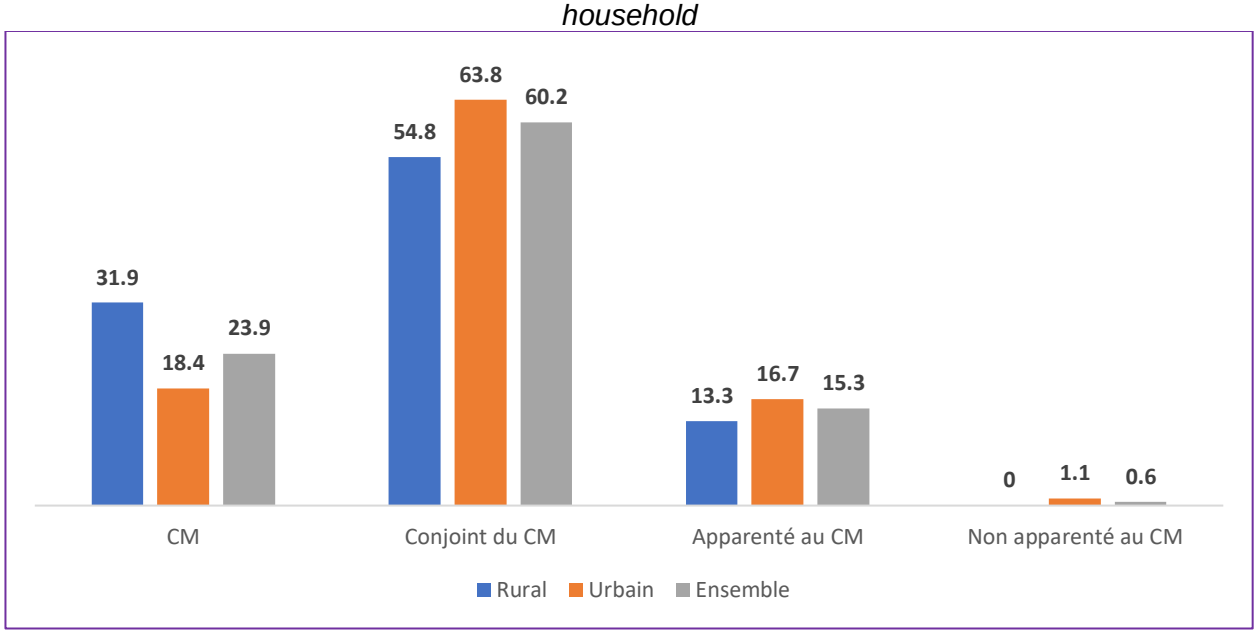
Graph 1: Distribution of respondents by main occupation according to place of residence



The results of graph 1 show that for the province as a whole, respondents exercising a liberal activity are the most represented (32.9%), they are followed by farmers (24.4%), the inactive (18, 7%), housewives (16.5%) against only 7.5% of employees.
Compared to the place of residence, we observe that agriculture remains the main activity for the majority of respondents in rural areas (54.9%) whereas it concerns only 3.8% of respondents in urban areas. With regard to liberal activity, it concerns 39.4% of respondents in urban areas against 23.3% of those in rural areas. Inactive respondents are three times less in rural areas (8.3%) than in urban areas (25.7%).

2.1.3. Respondent's relationship to head of household

Graph 2: Distribution of respondents by place of residence according to relationship with the head of household



Overall, the analysis of Figure 2 shows that about 6 out of 10 respondents are spouses of the Head of Household (HC), or 60.2%. Two out of 10 respondents (23.9%) are CMs, 15.3% are CM-related and only 0.6% are non-CM-related.
Compared to the area of residence, we note that it is in urban areas where there are more respondents who are spouses of the CM (63.8%) against 54.8% in rural areas.

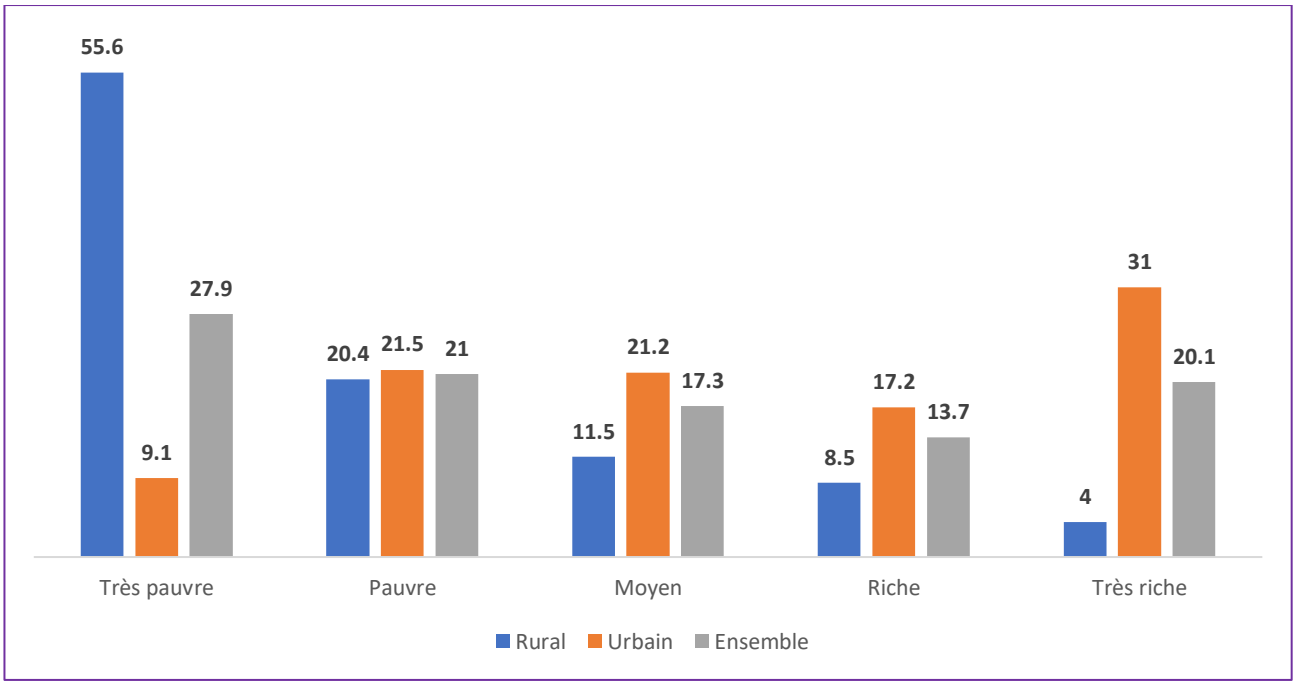
2.1.4. Household living conditions

In the absence of data on household income, the quintile of well-being is an indicator that provides information on the standard of living of a household. It is therefore a composite indicator which is constructed on the basis of the goods owned by the household (radio, television, telephone and watch), the comfort of the dwelling (wall materials, roof materials and nature of the floor at the inside the dwelling), the quality of drinking water consumed, the type of toilet used and the fuel used for cooking. These different variables were then dichotomized and subjected to a principal component analysis (PCA).

This analysis made it possible to assign a score to each household before classifying households with the same characteristics into 5 different classes: ***very poor, poor, average, rich and very rich.***

Despite its strength, the well-being quintile does not provide any information on monetary poverty and is essentially based on possessions and housing comfort.
Another criticism addressed to the well-being quintile is that it does not make it possible to identify the elements that differentiate two successive classes.

Graph 3: Distribution of households by quintile of economic well-being according to place of residence



It emerges from the results of graph 3 that overall, approximately 3 households surveyed out of 10 (27.9%) are very poor. Conversely, 20.1% of very wealthy households are recorded. Furthermore, although the differences between two consecutive levels of economic well-being are relatively small, the ratio of the highest quintile to the lowest is around 0.72.

The analysis according to place of residence reveals differences between the two places: 55.6% of households in rural areas are poor against only 9% of households in urban areas. Rural areas would therefore register a little more than 6 times the number of very poor households than in urban areas. In addition, there is a certain balance in the category of poor households, where 20.4% of households are recorded in rural areas against 21.5% in urban areas.

Along with the category of very poor households, the class of very rich households registers almost 8 times fewer households of this class in rural areas (4%) than in urban areas (31%).

2.1.5. Access to health services by households and habits, behavior towards health services by environment

Table 2.2: Distribution of households (in %) by type of health facility where households go most often according to place of residence and location of health facility

Type of health facility	Place of residence					
	Rural		Urban		Together	
	In the village/district	*In the neighboring village/district*	*In the village/district*	*In the neighboring village/district*	*In the village/district*	*In the neighboring village/district*
Public health facility	85	87.1	42.9	60.5	57.2	80.1
Private health facility	15	7.9	55.7	39.5	41.9	16.2
Pharmacy	0	3.3	0.9	0	0.6	2.5
Traditional healer	0	1.7	0.5	0	0.3	1.2
Total	**100**	**100**	**100**	**100**	**100**	**100**

Table 1.2 shows overall that 57.2% of households go most often to a public health facility located in their district/village against 80.1% who indicated their location in the neighboring village/district. In the same vein, 41.9% of households indicated that they most often go to private health facilities located in their district/village, whereas only 16.2% go to private health facilities located in the neighboring district/village.

According to place of residence, in rural areas, 85% of households go most often to public health facilities located in their district/village, while only 42.9% of households in urban areas declared going to public health facilities most often. public health facilities located in their neighborhood/village. In urban areas, 55.7% of households indicated that they most often go to private health facilities in their neighborhood/village, while in rural areas this situation concerns only 15% of households.

Thus, it emerges that households in rural areas would tend to attend public health facilities most often. Considering the pharmacy and the traditional practitioner, in rural areas, no household declared going there most often when these entities are in their district/village whereas when these entities are in the neighboring district/village, they are respectively 3.3% and 1.7% of households going there. Contrary to the rural environment, the urban environment does not record any household having indicated that they go most often to the pharmacy or to the traditional healer in the neighboring district/village.

Table 2.3: Breakdown of households by service sought from health facilities by place of residence (in %)

Service wanted	Rural	Urban	Together
Vaccination	39.7	39.2	39.4
Vitamin A supplementation	19.5	23.2	21.9
Growth tracking	33.1	35.1	34.4
Other services	7.7	2.5	4.3

The results in Table 1.3 provide information on the whole, vaccination is the service most sought after by the households surveyed, i.e. 4 out of 10 people (39.4%), followed by growth cited by 34.4% of households, supplementation vitamin A which is indicated by 21.9% of households and finally the other services concern 4.3% of households.

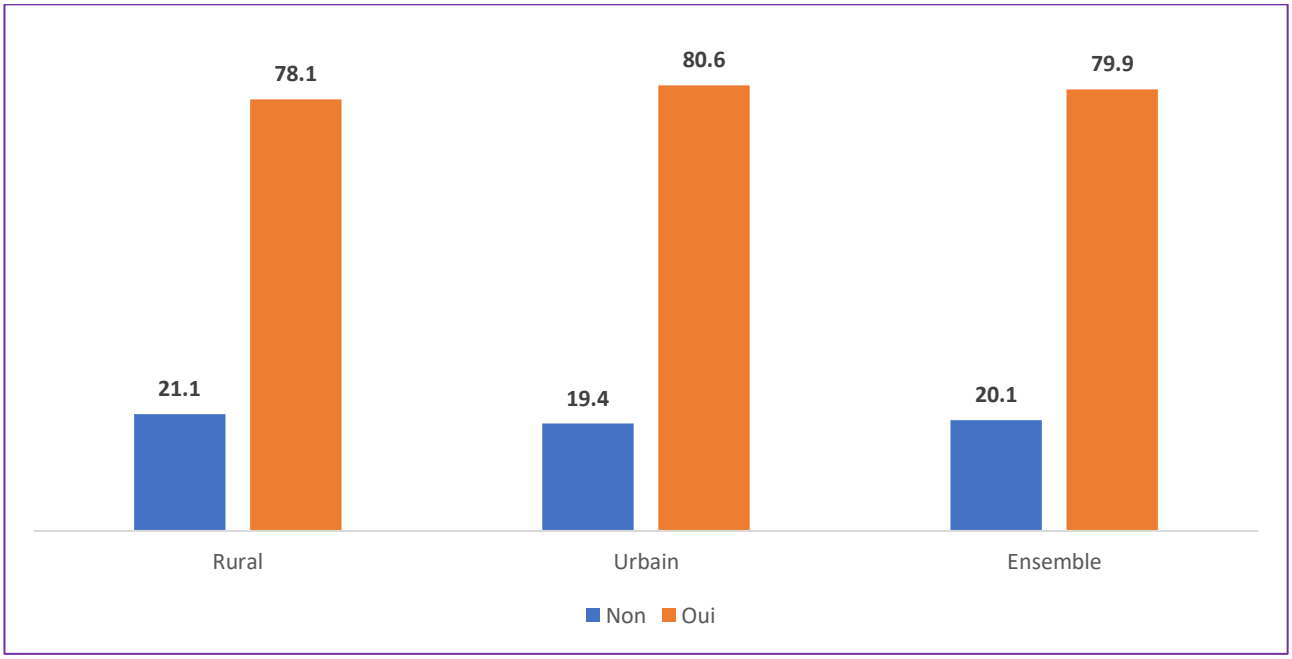
In comparison with the other services often sought, vitamin A supplementation emerges as the service least sought after by health facilities. Few households seek this service in health facilities given that they already benefit from it in their households at the time of the various community-based intensive routines of vitamin A supplementation.

Considering the area of residence, there are no significant differences between rural and urban areas, regardless of the service sought. However, with regard to other services, compared to urban areas (2.5%), in rural areas households (7.7%) seek out other services a little more, such as: prenatal consultation (CPN), childbirth, management of fever and malaria as well as other pathologies.

2.1.6. Communication strategy on the campaign by place of residence

2.1.6.1. Household information by place of residence

Graph 4: Breakdown of households (in %) informed of the SVAD before its start according to place of residence



It can be seen from graph 4 above that overall, about 8 out of 10 households (79.9%) were informed about vitamin A supplementation before the distribution.
The analysis according to place of residence does not reveal any major differences between the two places. Indeed, in urban areas, 80.6% of households declared having been informed of this routine/distribution of vitamin A supplementation against 78.1% in rural areas. In addition, in rural

areas, 21.1% of households indicated that they were not informed of the distribution against 19.4% in urban areas.

2.1.6.2. Means of communication about the campaign by place of residence

Table 2.4: Breakdown (%) of main VAS information channels

Communication channels	Rural	Urban	Together
town criers	12.70%	28.40%	23.90%
Mobilizers	25.20%	23.40%	23.90%
Personal health	13.50%	12.90%	13.10%
Community Relays	43.80%	16.50%	24.30%
Voluntary	0.00%	1.30%	1.00%
Word of mouth	0.00%	5.00%	3.60%
No one in the household	0.40%	2.00%	1.50%
neighborhood	1.10%	4.70%	3.70%
Radio	2.80%	3.50%	3.30%
Television	0.00%	0.30%	0.20%
Posters	0.00%	0.30%	0.20%
Opinion leaders	0.60%	1.60%	1.30%

It emerges from the elements of table 2.4 taken as a whole that information on vitamin A and deworming supplementation was brought to the attention of the populations more through community relays (24.3%), mobilizers (23.9%) , town criers (23.9%) and health personnel (13%). The other communication channels were less exploited, i.e. 14% taken together.

Compared to the area of residence, we observe that in rural areas, community relays are indicated by 43.8% of households as the channel that informed them of vitamin A supplementation before its start, while households in urban areas rather identified the town criers (28.4%) as the channel through which they were informed of this activity.
*
Although it is associated with modernity, television is cited by only 1.2% of households in urban areas as being the channel through which they were informed about vitamin A supplementation before its start. Contrary to urban areas, no household in rural areas indicated having been informed about vitamin A supplementation before its start by television, whereas 7.3% of households in this area indicated rather having been informed by the radio.

2.1.7. Household knowledge of vitamin A and deworming by place of residence

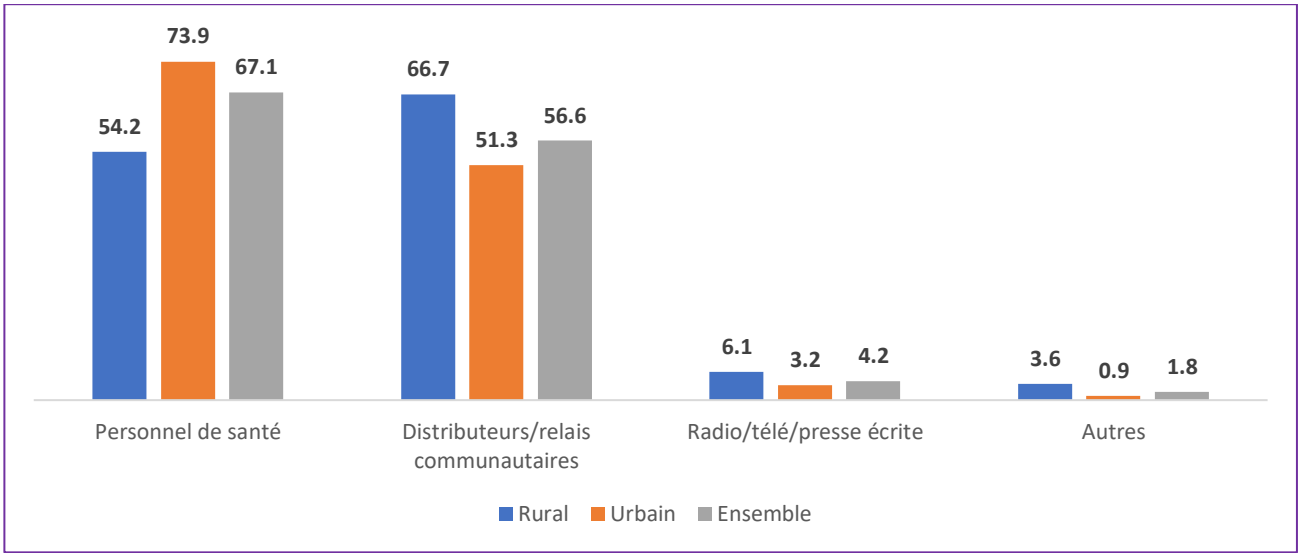
Table 2.5: Knowledge (name of product, age of first intake and Frequency, importance) of respondents about vitamin A and deworming

Knowledge	Rural	Urban	Together
	Vitamin A		
Product Name	80.5	90.1	87.5
Age at first intake			
Good answer (at 6 months)	37.7	51.4	45.9
Wrong answer	62.3	48.6	54.1
Frequency of intake			
Correct answer (2 times)	29.8	44.3	38.5
Wrong answer	70.2	55.7	61.5
Importance of Vitamin A			
Vision aid	3.2	13.8	9.7
Promotes growth	9.8	24.9	19.1
Protects against disease/anemia	46.5	33.1	38.3
Increases appetite	3.8	4.9	4.5
Do not know	36.7	23.3	28.4
	Deworming		
Product Name	76.8	85.7	82.1
Age at first intake			
Correct response (at 12 months)	31	52.7	43.9
Wrong answer	69	47.3	56.1
Frequency of intake			
Correct answer (2 times)	26.6	40.1	34.7
Wrong answer	73.4	59.9	65.3
Importance of deworming			
Treatment of intestinal worms	68.7	83.6	78
Protects against disease/anemia	22.1	13	16.4
Do not know	9.2	3.4	5.6

Examination of Table 1.5 shows that overall, 87.5% of households know vitamin A. In urban areas, about 9 households surveyed out of 10 indicated knowledge of vitamin A against 80.5% in rural areas, i.e. about 8 over-interviewed households.

2.1.8. Source of information on vitamin A and deworming by place of residence

Graph 5: Source of household information on vitamin A and deworming



Graph 5 shows that overall, the source of household information on vitamin A and deworming remains mainly health personnel (67.1%). This result differs according to the place of residence where we observe that health personnel are mentioned by 73.9% of households in urban areas against 54.2% of households in rural areas. In the same way, distributors/community relays are globally informed by 56.6% of households whereas in rural areas, they are mentioned by 66.7% against 51.3% in urban areas. Radio/TV/written press are mentioned by only 4.2% of households overall.

2.1.9.Index of knowledge of vitamin A and deworming by place of residence

Methodology for constructing the knowledge index of vitamin A and deworming

This index is built on the basis of 6 questions:

- Do you know the benefits of vitamin A? (Helps sight, promotes growth, protects against disease/anemia, increases appetite). A score of 20 points is assigned to a respondent who cites one of the benefits of vitamin A and 0 when no benefit of vitamin A was given by the respondent;

- At what age should children receive their first dose of vitamin A? (At 6 months corresponds to a correct answer and another represents the wrong answer). A score of 15 points is assigned to any correct answer and 0 for any incorrect answer;

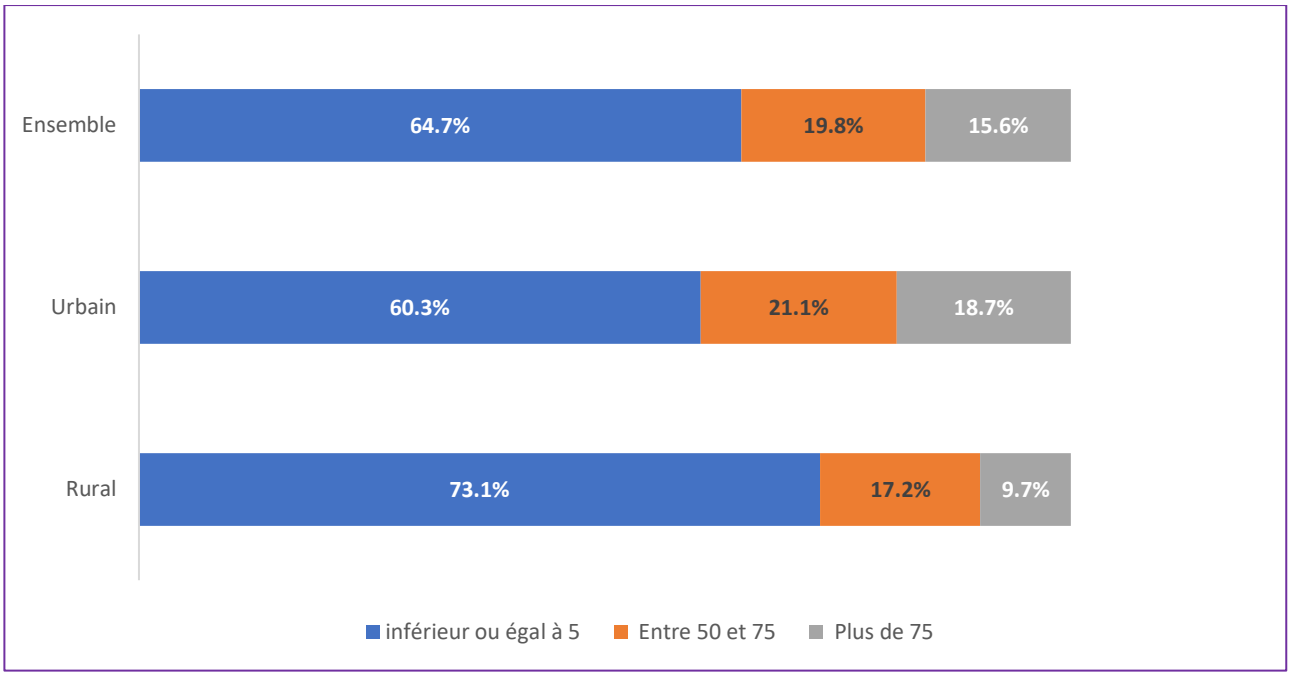
- How many times a year should a child receive vitamin A? (2 times corresponds to the correct answer and another to the wrong answer). A score of 15 points is assigned to any correct answer and 0 for any incorrect answer;

- Do you know the benefits of deworming? (Treatment of intestinal worms, protects against diseases/anemia). A score of 20 points is assigned to a respondent who cites one of the benefits of the dewormer and 0 when no benefit of the dewormer was given by the respondent;

- At what age should children receive their first dose of deworming? (A 12 months corresponds to a correct answer and another represents the incorrect answer). A score of 15 points is assigned to any correct answer and 0 for any incorrect answer;

- How many times a year should a child receive the deworming? (2 times corresponds to the correct answer and another to the wrong answer). A score of 15 points is assigned to any correct answer and 0 for any incorrect answer.

Graph 6: index of knowledge of vitamin A and deworming

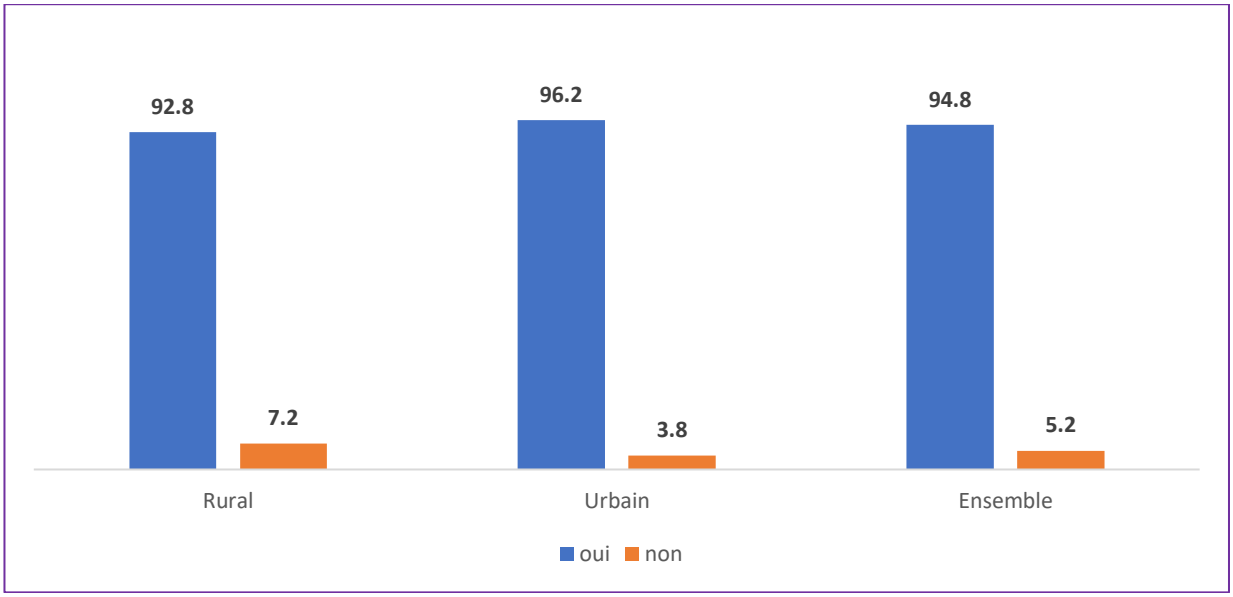


Graph 6 shows that overall, 73.1% of respondents have a knowledge index on vitamin A and deworming of less than 5 points, a very low value compared to the threshold of 75 points which guarantees good knowledge of vitamin A and deworming, 17.2% have an index between 50 and 75 points and only 9.7% have a knowledge index above 75 points. Depending on the place of residence, the trend remains the same.

2.2. QUALITY OF VITAMIN A ADMINISTRATION ACTIVITIES

2.2.1. Messages conveyed by the distributor during supplementation by place of residence

Graph 7: Breakdown of distributors who did or did not convey a message on health services during the campaign by place of residence



The results of graph 7 indicate that, regardless of place of residence, more than 9 out of 10 households declared having received a message relating to the health service from distributors/administrators (92.8% in rural areas against 96, 2% in urban areas).

Table 2.6: Distribution of households by type of messages conveyed by distributors during the activity of vitamin A supplementation and deworming according to place of residence

Product Benefits	Rural	Urban	Together
	Vitamin A		
Protects eyesight	26.2	63.5	48.5
Promotes growth	38.2	44.6	42
Good nutrition	16.5	17.6	17.1
Didn't say anything	55	23.3	36
Others	0.15	1.7	1.1
	Deworming		
Eliminate worms	54.8	82.2	71.1
Fight against anemia	8.7	22.3	16.9
Good nutrition	10.9	13.3	12.3
Didn't say anything	44	15.8	27.1
Others	0.74	0.59	0.65

Analyzing the results in Table 1.6, it appears overall that the message most conveyed in favor of vitamin A is that it protects eyesight (48.5%). The second message retained is that vitamin A promotes growth (42% of households) and the third message is that it helps ensure good nutrition (17%). It should be noted that the perception of the messages depends on the place of residence because in rural areas, the most retained message is that vitamin A promotes growth (38.2%) while in urban areas, it is the eye protection which comes first (63.5%).

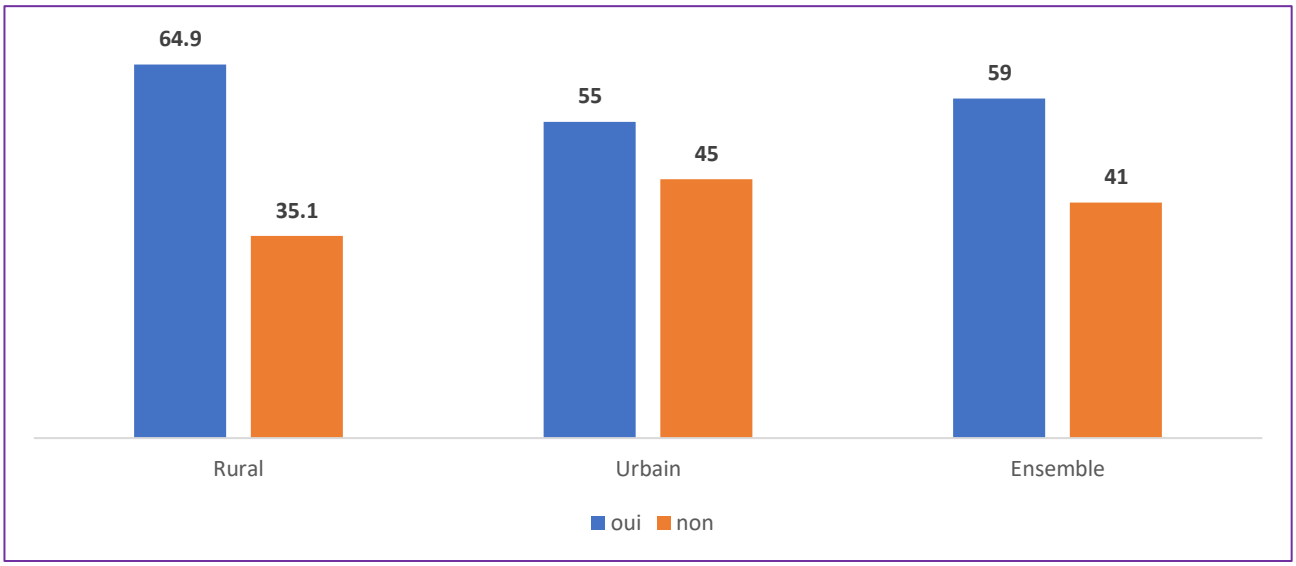
In relation to the importance of deworming , the main messages conveyed, in order of importance, are the elimination of worms, which was cited by 71% of households, followed by the fight against anemia (16.9%) and good nutrition (12%).

Moreover, considering the area of residence, 55% of households said that distributors conveyed no message on the benefits of vitamin A, against 23.3% in urban areas.

2.2.2. COVID VACCINATION COVERAGE OF SURVEYED HOUSEHOLDS

2.2.2.1. Vaccination coverage against Covid-19

Graph 8: Distribution (in %) of households by COVID vaccination status According to place of residence

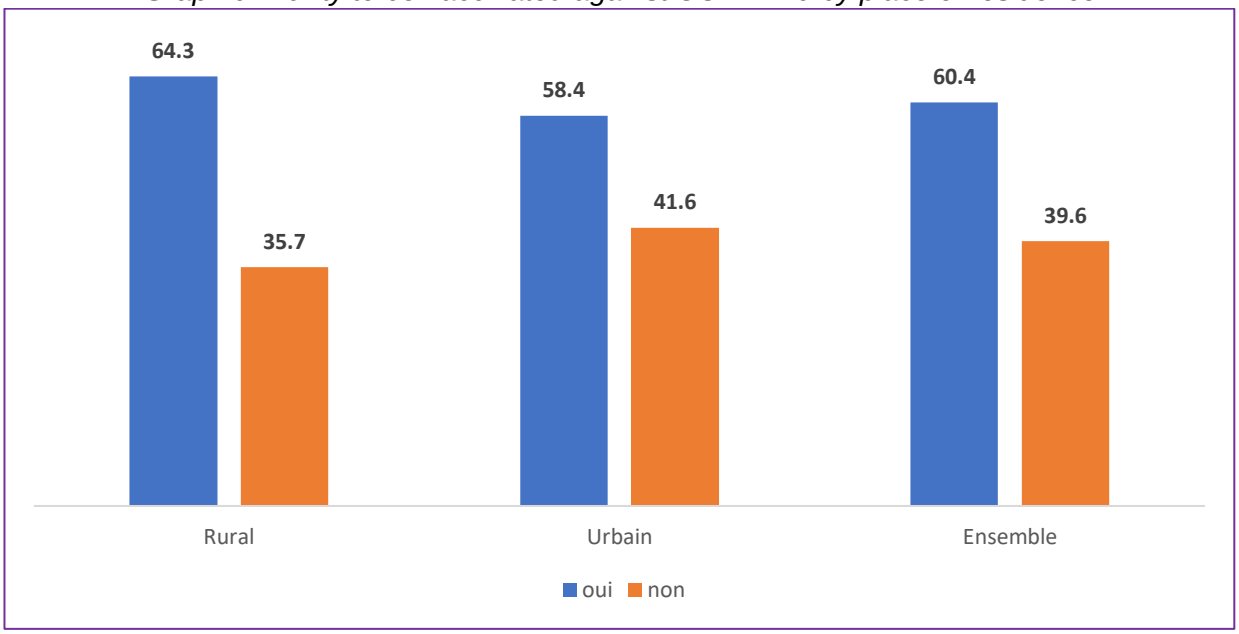


In total, it emerges from the analysis of graph 8, that approximately 6 out of 10 households surveyed (59%) stated that they had been vaccinated against covid.

Considering the area of residence, households in rural areas seem more inclined to vaccination: 64.9% are vaccinated against 55% in urban areas.

2.2.2.2 . Ability to get vaccinated

Graph 9: Ability to be vaccinated against COVID-19 by place of residence



Examination of Figure 9 reveals that among households that have not yet been vaccinated, 6 out of 10 households (60.4%) are in favor of vaccination against covid-19. This propensity for vaccination against covid-19 remains prevalent in rural areas (64.3%) against (58.4%) in urban areas.

2.2.2.3. Reasons for refusing to get vaccinated

Table 2.7: Reasons for refusing to be vaccinated by place of residence

Reasons	Rural	Urban	Together
Fear of contracting covid-19	7.7	27.6	21.4
Afraid they will administer the covid-19 vaccine	20.2	20.8	20.6
Mistrust of the vaccine	56.5	38.3	44
Others	15.6	13.3	14
Total	100	100	100

The description of table 1.7 shows, overall, that 44% of households mention distrust of the vaccine as one of the reasons for this refusal. According to the place of residence, we see that the reason "distrust of the vaccine" is cited by 56.5% households in rural areas against 38.3% of households in urban areas. The fear of contracting covid-19 is indicated by 21.4% of households overall, 27.6% of households in urban areas compared to only 7.7% in rural areas.

This large gap observed between these two environments would be justified by the false information characteristic of the urban environment and relating to the vaccine, in general, and to the vaccine against covid-19, in particular. The other reasons mentioned, in particular the state of illness or pregnancy represent 14% of households overall, 13.3% of households in urban areas against 15.6% of households in rural areas.

2.3 . RESULTS OF CHILD SURVEY DATA ANALYSIS

The sample **of** the study concerns a workforce of 1556 children including 787 girls against 769 boys. Compared to the area of residence, there are 1,003 children in urban areas and 553 children in rural areas.

2.3.1. Distribution of children by sex and age group.

Table 2.8: Distribution of target children by sex and age group according to place of residence

Socio-demographic characteristics of the child		Rural	Urban	Together
Sex	*Male*	50.9	49.6	50.1
	Feminine	49.1	50.4	49.9
	Total	100	100	100
Age group	*6-11 months*	12.4	11.8	12
	12-59 months	87.6	88.2	88
	Total	100	100	100

Examination of Table 1.8 reveals overall that 50.1% of target children are male compared to 49.9% female, thus reflecting a sex ratio of 1.004, and therefore almost equal to 1. In rural areas, 50.9% of target children are male against 49.1% female, while in urban areas 49.6% of target children are male against 50.4% female.

With regard to age, overall, nearly 9 target children out of 10 surveyed (88%) are in the 12-59 month bracket against (12%) in the 6-11 month bracket. The differences between the two age groups are observed in the different places of residence. In fact, in rural areas, 12.4% of children aged 6-11 months are recorded against 87.6% of those aged 12-59 months and in urban areas there are 11.8% of those aged 6-11 months. against 88.2% of 12-59 months.

Table 2.9: Distribution of children by source of date of birth information according to place of residence (in %)

Source	Rural	Urban	Together
Health book	33.9	51.5	44.3
Birth certificate	32.1	22.2	26.3
Event calendar	21.5	9.8	14.5
Other Sources.	12.5	16.5	14.9
Total	**100**	**100**	**100**

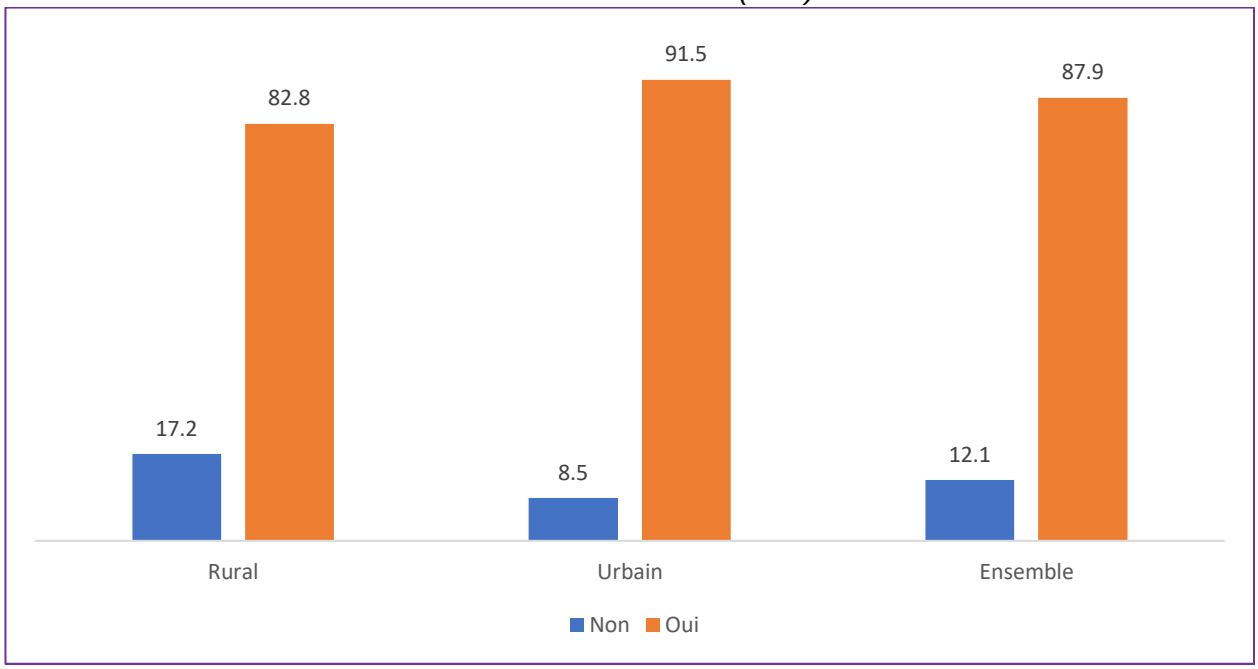
Table 1.9 shows overall that the health record emerges as the source of information that provides the most information on a child's date of birth (44.3%) while the birth certificate, the calendar of events and other sources concern respectively 26.3%, 14.5%, and 14.9% of children.
Moreover, the result relating to the birth certificate as a source of information on the date of birth of the child, seems to confirm that already found by the Multiple Indicator Cluster Survey-Malaria organized in the DRC in 2018 (MICS -PALU RDC 2018), which in 2018 had identified in Kasai Oriental that only 24.2% of children under the age of 5 at the time of the survey whose births were registered in the civil registry.

In relation to the other sources of data, the respondents mainly identified the birth record, the follow-up record as well as the verbal declaration of kinship (mainly the mother, father, brother, sister or other relatives).

With regard to the source of information on the date of birth according to place of residence, it can be seen that the health record remains the majority for children in urban areas (51.5%) against 33.9% of children in rural environment. The birth certificate concerns 32.1% of children in rural areas against 22.2% in urban areas. With regard to the calendar of events, this source of information on the date of birth of the child concerns 21.5% of children in rural areas, against only 9.8% in urban areas, whereas the other sources indicated for 12.5% and 16.5% of children, respectively in rural and urban areas.

2.3.2. Knowledge of the date of birth of children by place of residence

Graph 10: Distribution of children by area of residence according to the respondent's knowledge of the child's date of birth (in %).



The analysis of Chart 9 informs us that overall, the dates of birth of nearly 9 out of 10 children surveyed (87.9%) are known by the respective respondents against more than one (1) child in 10 respondents or (12.1%) whose date of birth is not known by the respondent.

Considering the area of residence, we observe that compared to the urban area (8.5%), and the rural area (17.2%) has twice as many children whose dates of birth are not known by their respective respondents. .

2.3.3. Vitamin A coverage of children 6-59 months

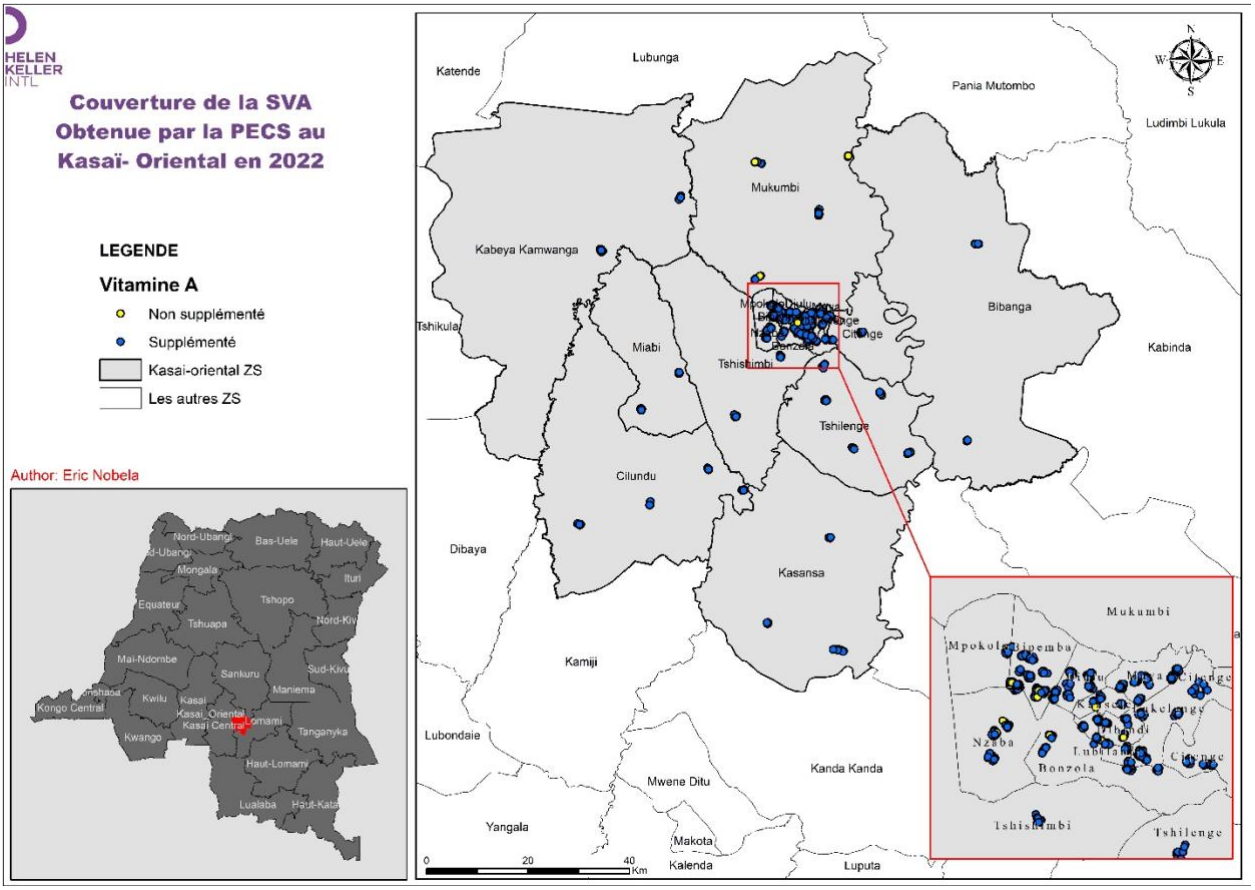
Table 2.10: Coverage of Vitamin A supplementation by place of residence

Vitamin A supplementation		Place of residence		
		Rural	Urban	Together
Nope	Effective	53	72	124
	%	8.3	7.8	8
Yes	Effective	577	840	1418
	%	90.6	91.5	91.1
DK	Effective	7	7	14
	%	1.1	0.7	0.9
Total	Effective	637	919	1556
	%	100	100	100

Table 2.10 indicates the vitamin A supplementation coverage rate therefore stands at 91.1% 91.1% (CI [90.16 – 92.92]) in Kasai Oriental.

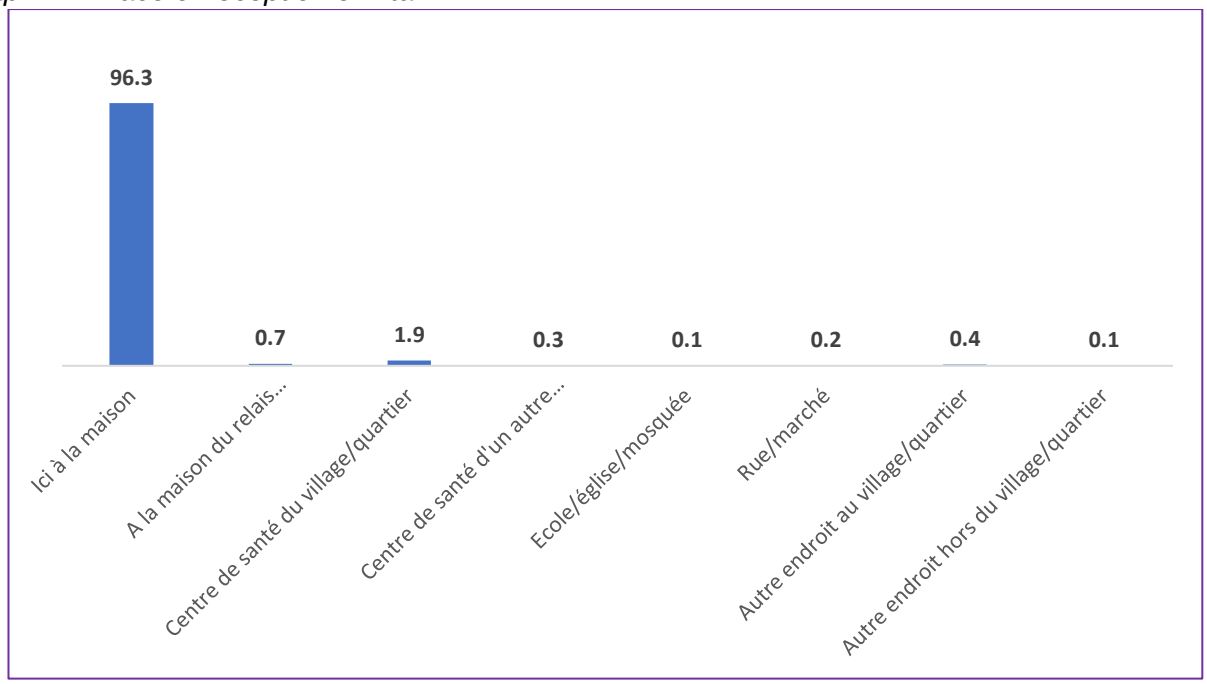
Compared to the place of residence, we observe the same trend with 91.5% (IC [89.4 – 93.2]) of children supplemented with vitamin A in urban areas against 90.6% (IC [87.0 – 93.3]) in rural areas.

2.3.3. Vitamin A Supplementation Coverage Map



2.3.4. Place of reception of vitamin A

Graph 11: Place of reception of vitamin A



The results of graph 11 show that the house where the child lives emerges as the place of reception of vitamin A for the majority of children. It concerns 96.3% of children while the health center of the village or district concerns only 1.9% of children.

Although the home where the child lives is by far the place where more children receive vitamin A supplementation, other places are nevertheless important insofar as they allow reaching other children who, for one reason or another, would be absent from their home (hospitalized child, children with their mother in a prayer retreat in church, children whose mother lives on the street, children accompanying their mother to a market, etc.).

2.3.5. Reasons for non-supplementation of vitamin A

Table 2.11: Distribution of children not supplemented with vitamin A by place of residence according to the reason for not supplementing with vitamin A (%)

Reasons for not vitamin A supplementation	Rural	Urban	Together
Absent parents	100	0	68
Age not eligible	0	100	32
Total	**100**	**100**	**100**

Examination of Table 1.11 shows that the reasons given for the non-supplementation of children with vitamin A are the absence of parents for rural areas and the non-eligibility of the child in relation to his age.

2.3.6. cover for children aged 12-59 months

Table 2.12: Deworming coverage by place of residence

Receiving the dewormer		Rural	Urban	Together
Nope	*Effective*	57	65	122
	%	10.2	7.9	8.9
Yes	*Effective*	491	742	1232
	%	87.6	91.2	89.7
DK	*Effective*	12	7	19
	%	2.2	0.8	1.4
Total	*Effective*	560	813	1373
	%	100	100	100

By analyzing Table 1.12, it emerges that overall 89.7% of the children targeted have been dewormed, 8.9% have not been and 1.4% of children whose respondents do not know whether or not they had been dewormed.

By examining the situation in relation to the place of residence, we observe that 91.2% of children have been dewormed in urban areas against 87.6% in rural areas. With regard to non-dewormed children, they are 10.2% in rural areas against 8% in urban areas. For children whose respondents do not know whether or not they were dewormed, there are 2.2% in rural areas against 0.8% in urban areas. The difference observed between the two media is significant at the 5% level (p-value=0.000). And therefore residing in a rural environment is a risk factor for the child not being dewormed.

2.3.7. Place of reception of the dewormer

Table 2.13: Place of reception of the parasiticide by place of residence (in %)

Place of reception of the dewormer	Rural	Urban	Together
here at home	97.6	94.3	95.8
At the home of the community relay/distributor	0.8	0.8	0.8
Village/neighbourhood health center	1	3.2	2.3
Health center in another village/district	0	0.4	0.2
School/church/mosque	0.3	0	0.1
Street/market	0	0.2	0.1
Other place in the village/district	0	0.7	0.4
Other place outside the village/district	0.3	0	0.1
MS	0	0.4	0.2
Total	100	100	100

The description in Table 1.13 shows that the house where the child lives remains the place in which more children receive the deworming agent regardless of the place of residence. It concerns 95.8% of children overall, 97.6% of children in rural areas against 94.3% of children in urban areas.
The health center of the village or neighborhood comes second with 2.3% of children overall, 3.2% in urban areas against 1% in rural areas.

2.3.8. Reasons for not taking deworming

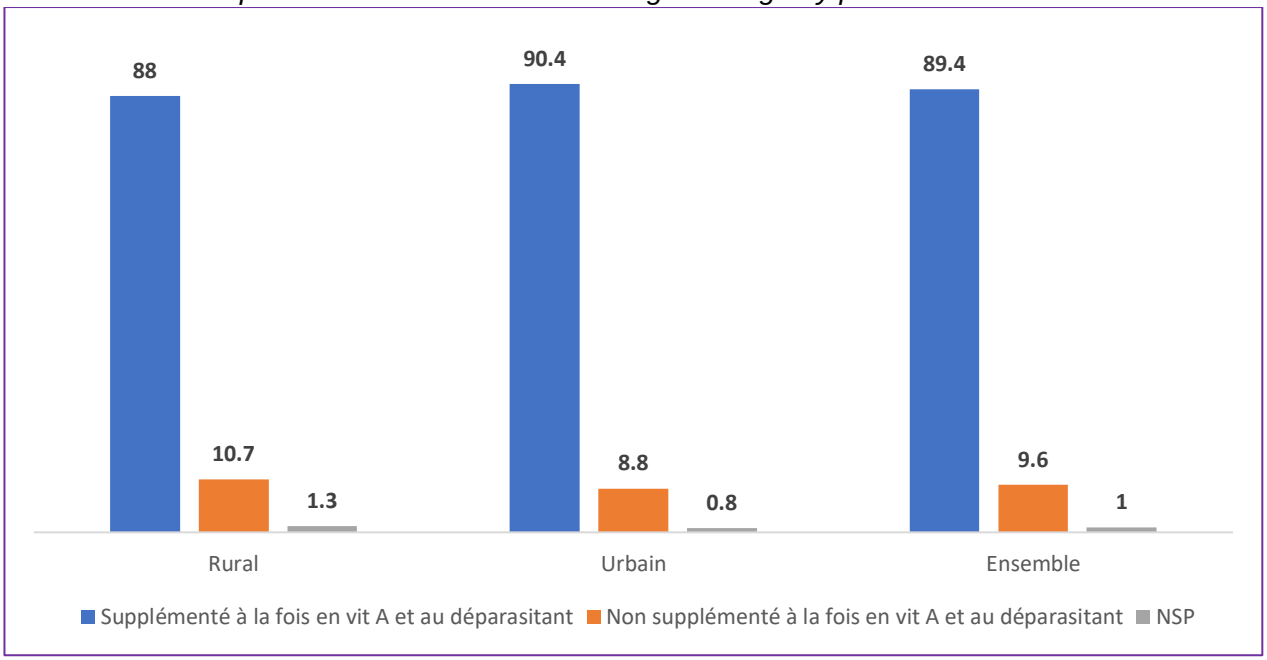
Table 2.14: Reasons for non-deworming by place of residence

Reason for non-worming	Rural	Urban	Together
Child was less than 12 months old	2.3	0	1.1
Don't know / don't remember	100	100	100
No reason	0	66.6	83.3
forgetting the mother	0	33.4	16.7
Total	100	100	100

The content of Table 1.14 shows that contrary to the reasons for not taking vitamin A supplementation, respondents whose children have not been dewormed indicate, among other things, that the child had not yet reached 12 months at the time of the distribution of deworming, this concerns 1.1% of children not dewormed overall, and 2.3% of children in rural areas. The other reason mentioned is forgetfulness by the mother.

2.4. Coverage of all vitamin A services and deworming

Graph 12: Vitamin A and deworming coverage by place of residence

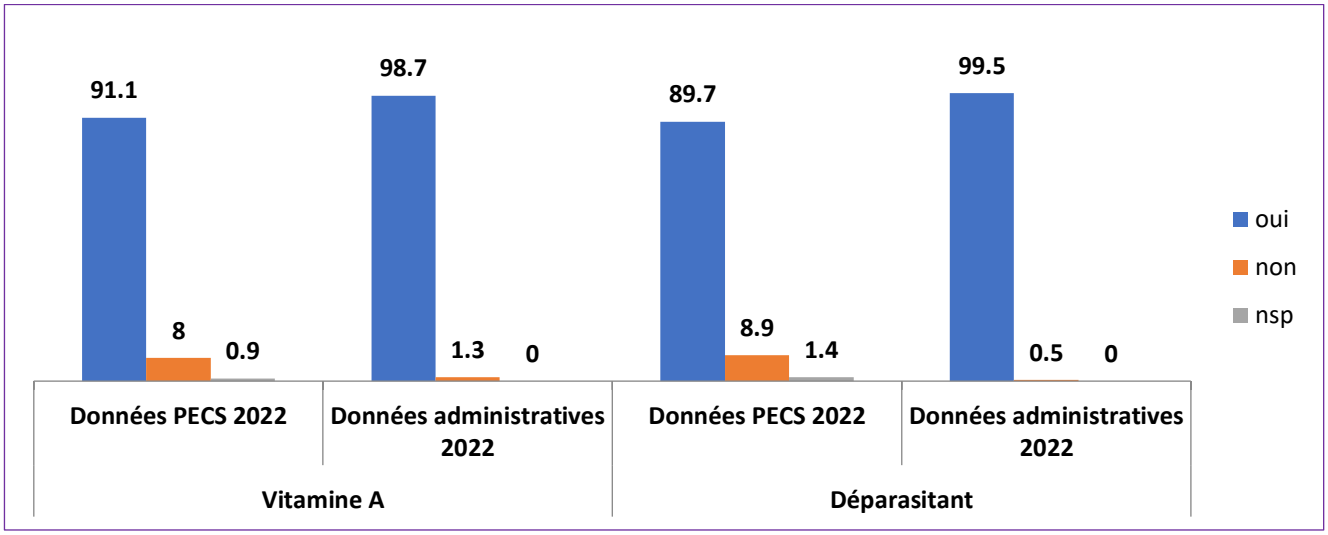


The results of graph 12 show that overall 587,983 or 89.4% of children were supplemented with both vitamin A and deworming, while 63,139 or 9.6% of children were not and 6576 or 1% of them whose respondents do not know if the child has been supplemented with vitamin A and deworming.

Compared to the area of residence, the proportion of children supplemented with both vitamin A and deworming revolves around the value of the whole: 88% in rural areas against 90.4% in urban areas.

2.5. COMPARISON OF ADMINISTRATIVE DATA WITH THOSE FROM THE SURVEY

Graph 13: Comparison of administrative data for vitamin A supplementation and deworming with those of the community-based post-routinization survey by place of residence



Graph 13 relates to the comparison between the administrative data for vitamin A supplementation and deworming with those of the community-based post-routinization survey.

Examination of this graph shows that 91.1% of children were supplemented with vitamin A according to PECS data compared to 98.7% compared to administrative data in the first round of the year 2022, i.e. a difference of 7.6% points. The difference observed with Vitamin A supplementation is also observed with deworming, where 89.7% of dewormed children are recorded according to PECS 2022 against 99.5% for administrative data, i.e. a difference of 9.8 % points.
These differences observed between the two sources could result from the fact that the coverage rate in relation to the administrative data is calculated on the basis of the estimated numbers, while that of the PECS is based on the numbers of children actually counted.

In addition, in the DRC the population estimate is still based on data from the National Institute of Statistics using the base of the General Census of Population and Housing (RGPH) of 1984, which to date, no longer provides reliable figures because of the obsolescence of this sampling frame.

2.6. VITAMIN A AND DEPARASITANT COVERS CHARACTERISTICS OF CHILD AND RESPONDENTS.

2.6.1. Vitamin A and deworming blankets and characteristics of children

Table 2.15: Distribution of children (in %) by socio-demographic characteristics according to vitamin A supplementation coverage.

Child characteristics		Vitamin A Supplementation Coverage						Number of children
		Nope	CI (%)	Yes	CI (%)	DK	CI (%)	
Child's age group	*6-11 months*	10.3	[10.1;10.5]	89.7	[87.5;89.9]	0	-	78.980
	12-59 months	7.7	[7.6;7.8]	91.3	[91.2;91.4]	1	[0.9;1]	578.719
Child's gender	*Male*	7.5	[7.4;7.6]	91.8	[91.7;91.9]	0.7	[0.6;0.7]	329.697
	Feminine	8.5	[8.4;8.6]	90.4	[90.3;90.5]	1.1	[1.1;1.2]	328.002
Relationship between respondent and child	*biological relationship*	7.5	[7.4;7.6]	92	[91.9;92.1]	0.5	[0.49;0.53]	537.051
	Other relatives	11	[7.4;7.6]	87.3	[87.1;87.5]	1.7	[1.6;1.8]	89.849
	Not related to the child	8.7	[7.4;7.6]	86.2	[85.8;86.6]	5.1	[4.9;5.3]	30.799
Together		8	[7.9;8.1]	91.1	[91;91.2]	0.9	[0.86;0.91]	657.699

Considering the age group, 89.7% of children were supplemented with vitamin A at 6-11 months against 91.3% at 12-59 months. The chi-2 test shows an association at the 5% threshold (p-value=0.000) between the age group of children and vitamin A supplementation. This shows that age influences vitamin A supplementation.

With regard to the sex of the child, although the gap between the two sexes is relatively small, the chi-2 test shows a significant association at the 5% threshold (p-value=0.000) between vitamin supplementation A and sex. Male children are 91.8% to be supplemented with vitamin A against 90.4% for those of female sex.

The analysis of the chi-square test shows a positive association at the 5% threshold (p-value=0.000) between the relationship of the child to the respondent. In fact, the further one moves from the category of respondents with no relationship to the child to the biological relationship category, the proportion of children supplemented with vitamin A increases. It therefore emerges that biological kinship is a factor that increases vitamin A supplementation. In fact, 92% of children supplemented with vitamin A have a biological kinship with the respondents compared to 87.3% of children whose relationship is non-biological (other relatives) and 86.2% are unrelated to the respondents.

Table 2.16: Distribution of children (in %) by socio-demographic characteristics according to deworming coverage of children aged 12-59 months

Child characteristics		Dewormer coverage						Number of children
		Nope	CI (%)	Yes	CI (%)	DK	CI (%)	
Child's age group	*12-23 months*	9.8	[9.6;9.9]	88.8	[88.6;88.9]	1.4	[1.4;1.5]	139,280
	24-59 months	8.6	[8.5;8.7]	90	[89.9;90.1]	1.4	[1.3;1.4]	439.438
Child's gender	*Male*	8.1	[7.9;8.2]	90.4	[90.3;90.5]	1.5	[1.4;1.5]	293.101
	Feminine	9.7	[9.6;9.8]	89	[88.9;89.1]	1.3	[1.2;1.3]	285.617
Relationship between respondent and child	*biological relationship*	8.9	[8.8;9]	90	[89.1;90.1]	1.1	[1;1,1]	467.525
	Other relatives	9.5	[9.3;9.7]	88.6	[88.4;88.8]	1.9	[1.8;2]	82.482
	Not related to the child	6.3	[6.1;6.6]	88.2	[87.8;88.5]	5.5	[5.2;5.7]	28.711
Together		8.9	[8.8;8.9]	89.7	[89.6;89.8]	1.4	[1.3;1.4]	578.518

Table 1.16 shows that the trend observed with vitamin A supplementation seems to be maintained with Deworming. Overall 89.7% of children have been dewormed against 8.9% not dewormed and 1.4% whose respondents do not know if the children have been dewormed or not.
Compared to the age group, 88.8% of children were dewormed among 12-23 months against 90% among 24-59 months. The chi-square analysis shows that the difference observed in the deworming rate between children aged 12-23 months and those aged 24-59 months is significant at the 5% level (p-value=0.000).

The chi-square test shows a significant association at the 5% threshold between the kinship link and deworming, biological kinship being a factor in increasing the rate of deworming.
Concerning the sex 90.4% of children were dewormed in the male sex against 89% in the female sex. The chi-square test also indicates that the difference observed between the two sexes is significant at the 5% level (p-value=0.000).

Examining the relationship of the child with the respondent, we note that 90% of children having the biological relationship with the respondents were dewormed against 88.6% for the children therefore the relationship with the respondents is other parents and 88.2% for children not related to the respondents.

2.6. 2. Vitamin A blankets and communication strategy

Table 1.17: Breakdown of caregivers (in %) who have been informed of the taking of Supplementation or not by place of residence according to the coverage of vitamin A supplementation

Place of residence	Have been informed of the Supplementation	Vitamin A Supplementation Coverage			Total
		Nope	Yes	DK	
Rural	*Nope*	21.4	75.2	3.4	100.0
	Yes	4.6	94.9	0.5	100.0
Urban	*Nope*	18.1	78.3	3.6	100.0
	Yes	5.1	94.9	0	100.0
Together	*Nope*	19.5	77	3.5	100.0
	Yes	8	91.1	0.9	100.0

With regard to the relationship between the information on the holding of the vitamin A supplementation campaign, it emerges that the fact of being informed is positively associated with vitamin A supplementation. Indeed, the chi- 2 shows an association at the 5% threshold (p-value) between being informed of taking vitamin A supplementation. , respondents said they had been informed of the vitamin A supplementation campaign before it started.

Moreover, regardless of place of residence, we find that for respondents who were not informed of the vitamin A supplementation campaign before its start, the vitamin A supplementation coverage rates are low and deviate greatly from 91.1%, the coverage rate for the entire province: 75.2% in rural areas and 78.3% in urban areas.

For children not supplemented with vitamin A whose respondents were not informed of the conduct of the supplementation campaign before its start, we record 19.5% of children overall, 21.4% of children in rural areas and 18.1% e, urban areas.

2.6. 3. Vitamin A coverage and household standard of living.

Table 2.18: Vitamin A supplementation coverage by wealth index

Wealth index	Vitamin A Supplementation Coverage			
	Nope	Yes	DK	Together
Very poor	37.4	27.8	26.5	28.5
Poor	16.1	17.7	7.9	17.5
Medium	15.8	17.3	16.7	17.2
Rich	17	16.4	48.9	16.8
Very rich	13.7	20.8	0	20
Total	**100**	**100**	**100**	**100**

Analysis of the results in Table 1.19 shows that for children not supplemented with vitamin A, 37.4% are very poor against 13.7% of very rich children, which is equivalent to a ratio of 0.37 of very poor on very rich.

Concerning the children having received the supplementation, we record 27.8% among the very poor, 17.7% among the poor, 17.3% among the average, 16.4% among the rich and so 20.8% among the very rich. Considering the children whose respondents indicated that they did not know if the child had been supplemented with vitamin A, we register 26.5% of very poor children against 48.9% among the rich .

2.6.7. QUALITY CONTROL DURING DATA COLLECTION

I. Steps

Quality control of collection in households planned to cover 20% of the households surveyed. An abbreviated questionnaire is prepared to allow the supervisor to collect key information including age, vitamin A and deworming coverage. Household responses from the first interview will be compared to those from the 2nd interview conducted by the supervisor.

II. Sample size

The methodology provides for the quality control of the household questionnaire to be carried out by the supervisors in 20% of the sample, ie 170 households.

Table 2.19: Number of questionnaires planned

Questionnaire type	Investigators	Supervisors
Household questionnaires	852	170

III Main Results

III.1 Sample coverage

The coverage rate for supervisor questionnaires is 85%. The supervision started at the same time as the collection teams but returned two (2) days before the end of the collection. This justifies this low coverage observed.

Table 2.20: Collection coverage

No.	Questionnaire type	Expected number	Number filled	Coverage
1	*Household questionnaires*	852	925	109%
2	*Supervisor questionnaires*	170	157	93%

III.2 Comparison of investigator and supervisor interviews

The comparisons of the two interviews, the 1st conducted by the interviewer and the 2nd by the supervisor, are made for the keys of the survey.

III.3 Number of children aged 6-59 months

Differences were observed in the number of children aged 6 to 59 months in the household. This difference is only 6%, it would result in the majority of cases, in determining the child's age in months.

Table 2.21: Number of children aged 6-59 months

	Effective	Percentage
Same value	136	94
Different	9	6
Total	**145**	**100**

III.4 Sex of the child

We observed that 2% difference in the comparison of the information on the sex of the children collected by the supervisors and that collected by the interviewers.

Table 2.22: Sex of child

	Effective	Percentage
Same value	142	98
Different	3	2
Total	**145**	**100**

III.4 Child's age

The principle of age determination tolerates a margin of +/- 1 month. Therefore, the difference is only considered for cases exceeding +/- 1 month. In our study, the differences between the ages in months were most often beyond 3 months and this difference is estimated at 15%.

Table 2.23: Child's age

	Effective	Percentage
Same value	123	85
Different	22	15
Total	**145**	**100**

Regarding the source of information on the age of the child, we found a fairly significant difference, 26% against 74% correspondence. However, the difference in the ages of the children, 6% (out of the 15%) would result from a difference in the sources of information while the remaining 7% come from a different statement made by the respondents.

III.5 Vitamin A

The difference in vitamin A coverage is 7.6%. The age of the child is indeed the main source of this difference. Indeed, a poor assessment of age leads to questions relating to a service being asked when the child is not eligible for it.

Table 2.24: Vitamin A coverage

	Effective	Percentage
Reception according to the interviewer		
Nope	14	9.66
Yes	130	89.66
Do not know	1	0.69
Total	145	100
Reception according to supervisor		
Nope	12	8.28
Yes	133	91.72
Do not know	0	2.63
Total	145	100
Difference in Vitamin A coverage		
Same value	134	92.04
Different	11	7.6
Total	145	100

III.6 Deworming

The difference in coverage by deworming is only 4%. This difference also stems from age determination.

Table 2.25: Deworming coverage

	Effective	Percentage
Reception according to the interviewer		
Nope	12	10
Yes	107	89.2
Do not know	1	0.8
Total	120	100
Reception according to supervisor		
Nope	12	10
Yes	108	90
Do not know	0	0
Total	120	100
Difference in Deworming coverage		
Same value	115	96
Different	5	4
Total	120	100

IV. Conclusion

In sum, the quality control of the collection in the households revealed small differences between the data collected by the supervisors and the enumerators. The sources of these errors boil down to those of the assessment of the children's ages.

CHAPTER 3: IMPLEMENTATION OF VITAMIN A SUPPLEMENTATION AND DEPARASITANT ACTIVITIES

This chapter, which examines the operationalization of the activities of the SVAD, is expressed around the main terms in particular: (i) the preparation of the activities of the last three SVAD, (ii) the evaluation of the knowledge of the various actors involved in the process implementation of SVAD activities, and the description of the perceptions of the Titular Nurses, parents of children in households, and (iii) the analysis of the bottlenecks inherent in the implementation of the SVAD.

3.1. PREPATION OF ACTIVITIES FOR THE IMPLEMENTATION OF THE LAST THREE SAVDs

Vitamin A supplementation and deworming relies on the strategy of community-based routinization of routine and mass distribution activities. It puts the Technical and Financial Partners (TFPs) and the Ministry of Public Health, Hygiene and Prevention and the community upstream.

The last three passages of the SVAD benefited from the support of Helen Keller Intl., UNICEF and respectively for rounds 1 & 2 of 2021. For the first round of 2022, all the partners mentioned above were involved in the implementation implementation of SVAD activities. Although the diversity of TFPs is an important asset in the eradication of vitamin A deficiency (VAD), their collaboration poses the challenge of the entanglement of their respective interventions.

The collegiality between the implementing partners is all the more perceptible through the mechanisms of coordination and micro-planning of activities, supply and distribution of inputs and data management, all of which provide an overview to the contribution of the actors to the last three activities of SVAD.

3.1.1. Coordination of the activities of the last three S VAD

The activities of the Ministry of Public Health, Hygiene and Prevention (MSPH in acronym) are coordinated by a committee which brings together all the key stakeholders under the leadership of the MSPH, responsible for the said activity. Admittedly, the SVAD are under the leadership of the Provincial Health Department (DPS) and the National Nutrition Program (Pronanut).

The intensive community-based routinization of Vitamin A supplementation and deworming, whether in fixed or advanced strategies when associated with vaccinations, benefit from the frequent and large-scale deployment of these strategies on the national scene, as well as as vitamin A supplementation from six (06) months and deworming at the age of (12) months.

3.1.2. Strategic coordination

Strategic coordination is led by a committee which brings together three types of actors: the first group is made up of several directors of the Ministry of Public Health, Hygiene and Prevention, the second group is made up of PTFs such as Helen Keller Intl. ., UNICEF, Vitamine Angels and the third group for its part, concerns the so-called actors of related sectors, among others those of the ministries of communication and basic education.

This multisectoral committee is made up of sub-committees responsible for conducting discussions on coordination, service delivery, logistics and supply of vitamin A and deworming, communication, epidemiological surveillance and the production of report. Once the chairpersons of the sub-commissions and the rapporteurs are appointed, the ToRs are brought to the attention of various stakeholders. Broadly speaking, the functions of different subgroups are as follows:

- **Coordination** : Coordinate all stakeholder activities, institutional communication, mobilization and distribution of funds at all levels of intervention and on time.
- **Service** delivery: Develop the organizational project, the training agenda, update training modules, supervision plans at all levels, update technical tools and manage data.

- **Logistics and supply of inputs** : Ensure the availability of inputs, develop and implement a distribution plan and an operational logistics plan.

- **Communication** : Conduct advocacy with the authorities, initiate newsletters, develop the communication plan, prepare and distribute the press kit, press releases and key messages, develop training modules, etc.

- **Epidemiological surveillance** : Carry out all surveillance activities during routine, ensure the reporting and consolidation of data, prepare a report at the end of SVAD activities

- **General report** : Write the minutes of each preparatory meeting, write the general report of the activity.

The work in each sub-group made it possible to make a synergy of the activities of the distribution of vitamin A and Deworming according to the objectives to be achieved and the strategies to be adopted, to share information, the availability of moments and. It is done during weekly ad-hoc meetings, at the entire central level of the MSPHP and this with the assistance of the PTFs, and all the provincials. However, following emergencies or the imminence of distributions, rearrangements can be made, knowing that the frequency of meetings is decided by mutual agreement between the Ministry and the partners.
All of these activities are part of the preparatory phase of supplementation. In addition, there is also strategic coordination that continues to unfold during the actual implementation phase. To this end, the central coordination of the last three passages of the SVAD were based at Pronanut with the support of partners Helen Keller Intl, UNICEF, Vitamine Angels, etc.

3.1.3. Operational coordination

Operational coordination is carried out on the administrative, technical and interpersonal levels. At the administrative level, operational coordination makes it possible, via the administrative notes of the supervising Ministry, to inform the administrative and traditional authorities (governors, religious and community leaders, private partners, NGOs, etc.) who support the activity.
Technical coordination, for its part, brings together the provincial managers of the technical services responsible for implementing the strategic directives from the central level during a workshop.

While the interpersonal coordination is due to the cordial and friendly relations between the managers of the management team of the health zones and the provinces, and the administrative, traditional and/or religious authorities who are very important relays of health information. with communities.

The essential role of the provincial technical committees is the validation and the operationalization of the micro-planning of the strategies and of all the tools of routinization: operational timetable, monitoring tools for data collection, monitoring-evaluation, monitoring and implementation. implementation of the conduct of the investigation as well as the evaluation and coordination of the final report of the SVAD.

3.2. EVALUATION OF THE KNOWLEDGE AND PERCEPTIONS OF THE DIFFERENT ACTORS INVOLVED ON THE PROCESS OF IMPLEMENTATION OF SVAD ACTIVITIES

The evaluation of the coverage during the SVAD passes by the junction of the elements inherent to the activity to better refine the routinization, as for this investigation it was a question of:
- The implementation of a post-routinization survey in order to ensure the reliability of administrative data relating to coverage;
- To shed light on the activities, independent monitoring is organized by the Helen Keller Intl team to accompany them;
- The provinces not covered were covered because of the late arrival of inputs, unjustified DCTs;
- Evaluation in the provinces and at the national level
- All provinces were covered.

3.2.1. Knowledge of the different actors on the implementation of the SVAD

In the light of the answers given by the parents of the children supplemented during the last three SVAD, it is clear that the actors demonstrate their apprehensions on the theme with anger and this in various ways and according to the main themes below:

- frequency of visits by Vitamin A and Deworming administrators;
- age of administration of deworming and vitamin A to children;
- the importance of SVAD

Regarding the frequency of SVAD, it has been clearly reported over the past 18 months by the majority of parents that their children have benefited from vitamin A and deworming twice a year and according to urban and rural areas. .
For age, parents' knowledge has reached an acceptable threshold because they know the age at which vitamin A and deworming must be administered, many of them cited twice a year for two visits.

Moreover, some parents say that the child may need to be supplemented at preschool age, which is around less than 11 months to 59 months for vitamin A and 12-59 months for the Albendazole deworming agent.
Concerning the importance of SVAD, the ideas were divided because some believe that vitamin A is *a product that treats the eyes, helps for clear vision, stimulates the appetite, strengthens the immunity of the child. While albendazole helps in the fight against intestinal worms because children often eat clay and sands in childhood, other parents fix opinions by saying healthily that the Dewormer allows the good growth of children and fights against malnutrition and so many other childhood illnesses.*

These products play a very important role in the psychomotor development of children despite some of them who deplore the lack of clear explanations on the part of distributors, which according to them should provide the fullest details concerning the understanding of these products.

3.2.2. Attitudes and practices

These parents have a very good practical attitude; they scrupulously respect the recommendations provided by nutritionists, nurses and members of CAC, they say that by respecting the orientations of health personnel; this allows their children not to have many health problems in general. One of them loudly proclaims this intensive community-based routine approach.

For gender, some women say that their husbands/partners play a very crucial role because, during the SVAD even though they often demand additional information on the activities, but for some women, their husbands are too busy with their work. Compared to men who prioritize their work first instead of driving the children to the CPS and or staying at home when the wife is too busy with other activities, as one father pointed out " *we quote, I have to go look for my family and the wife must stay to watch the children and their wishes".* This reflection clearly explains the decision taken by some women concerning the care of their children because they themselves decide on sending the children to the health facility to benefit from the services reserved for them.

3.3. SVAD BOTTLENECK ANALYSIS

The SVAD is perceptible through different aspects including coordination, micro-planning, supply of inputs, data management, training and communication strategy, reasons for non-administration of Vitamin A and Deparasitant and contributing to programs.

The bottlenecks of the last three passages of the SVAD can be understood only after having examined the strengths, opportunities and threats of the elements mentioned above which will allow the formulation of recommendations.

3.3.1. Coordination

For the coordination of activities, we present it under different elements according to the understanding of the main themes, these are: (i) strengths, (ii) weaknesses, (iii) opportunities, (iv) threats and (v) recommendations:

STRENGTHS	WEAKNESSES
- Favorable opinion of support partners in relation to the plan developed in the operational areas - Synergy of activities to enable their efficiency and improvement - Planning meetings are made with all partners involved - The minutes of the meetings are made and shared with all concerned - Parents now understand the importance of VAS - Reframing plans for the 2nd phase - At the level of the Province Unicef is in charge of the purchase and distribution - At the level of the capital, vitamin Angels is in charge. - Decrease in the mortality rate according to the MICS 2017-2018 from 104 to 70 per 1000 births; - Activity that covers a large target population of children aged 6-59 months;	- Weak advocacy of the action plan at the national level - Late delivery of reports by some supervisors - Time difference for foreign partners - Non-compliance with the schedule of activities. - Deworming Shortage - Orders are sometimes made late. - Difficult accessibility of certain HZs causes a slight delay
OPPORTUNITIES	**THREAT**
- Presence of support partners -	- Poor stock management provided at the same time by Unicef and by Vitamine Angels - Large quantity of vitamins A which risks expiry in warehouses - Direct and expanded competition between input suppliers

3.3.2. Micro-planning

Micro-planning presents itself in many aspects through the box below:

STRENGTHS	WEAKNESSES
- Identification of needs is done at all levels of the country with partners on priority needs (national, provincial and operational) - Existence of a framework for identifying needs for the province and at the level of ZS, AS, Villages - Taking into account the opinions and considerations of the provincial and operational level (all budgetary, material, personnel aspects, etc.) - Sharing of micro planning	- Non-compliance with the consolidated micro plan (budget, materials, etc.) - Provincial division requests a high amount in terms of human resources and cost of the activity - Needs presented by the operational level are greater than the resources made available by the TFP
OPPORTUNITIES	**THREAT**

- Availability of large stocks of vitamins A at the operational level - Availability of Instant Stock Inventory Reports(Dewormer) - Existence of activity monitoring reports	- RAS

3.3.3. A supply of inputs

The Input Supply Diagram is understood according to the different elements shown in the box:

STRENGTHS	WEAKNESSES
- Availability of inputs in sufficient quantity over time - Supply is ensured by the partners - Existence of a distribution circuit for the ZS, AS and Villages - Good quality of inputs -	- Mebendazole deficiency, parent motivator - Lack of means of transport for the deployment of inputs - Low funding for transport from the DPS to the Base. - No respect of delivery time - Inaccessibility in certain health zones - DCT (Direct Cash Transfer) of the provinces lead to the blocking for the payment at the provincial level and this charges the national level
OPPORTUNITIES	**THREAT**
- Presence of partners on the ground. - Existence of an FAA contract with the DPS which subsidizes all activities (inputs, CAC, communication)	- High cost of fuel - Fuel shortage - Advanced deterioration of road infrastructure

3.3.4. Data managment

Data management consists of enlightening decision-makers on the most appropriate modes of intervention to achieve their objectives, it is another type of work which aims to collect information making it possible to evaluate existing policies and interventions here and elsewhere and to identify the conditions for success in the context of the specific province. To do this, on this box is the following elements:

STRENGTHS	WEAKNESSES
- Training of data managers at the base. - Availability of collection tools. - Organization of validation meetings at all levels - Monitoring strategy - Taking into account the health pyramid (AS - summary sheets - ZS - DPS - compilation of the central province) - Evaluation of data at the province level. - Summary sheets – sup – ZS – province - Organization of the Workshop – for presentation of results	- Report of transmission of reports to the hierarchical level - The target population remains higher than expected. - Existence of a parallel data collection system - Training is organized on the eve of activities - T ransmission of information late - Lack of a commission of data managers (DHIS2 managers + Pronanut managers) for data management during the SVAD of round 1 of 2022;
OPPORTUNITIES	**THREATENS**
- Use DHSI2 for data collection from national level down to grassroots level - Sharing sheets	- RAS

3.3.5. Communication strategy

The communication strategy involves the implementation of a set of communication actions to achieve fixed objectives, to do so, it is a question of:

STRENGTHS	WEAKNESSES
- Strong community involvement - Taking advantage of different communication channels are used: written messages, radio, the provincial communication plan, spots are broadcast, messages shared with criers and CACs. - Setting up supports for communication activities - The activities are done in close collaboration with the radios, the spots are broadcast messages shared with the criers, the CACs. - Leaders involved in MAM mainstreaming activities : IMAMs, pastors, mass communication are used	- Capitalization of undocumented efforts - No communication plan at national level - Absence of posters, banners and large publicity on the SVAD - The budget is often limited -
OPPORTUNITIES	**THREATENS**

- Existence of a local plan with all the partners in place	- The Kulana demands the money and refuses the supplementation activity

3.3.6. Reasons for not administering VITAMIN A and DEPARASITANT

Understanding the reasons for not administering Vitamin A and deworming through these elements:

- The COVID-19 pandemic which at times sows confusion in the heads of parents who confuse the 2 activities.
- Demotivation of service provider staff.
- Case refusal: confused, especially when the service provider is not known.

3.3.7. Contribution to SVAD programs for children from 06 months to 59 months

Coordination of activities:

- Implementation, development of normative tools, monitoring and evaluation, training at all levels, mobilization of human resources;
- Involvement and stakeholder in micro-planning;
- Coordination of activities at the entire level of the health pyramid;
- Coordination, training at the level of the provinces, Health Zones;
- Call on partners for support;
- The contribution is 100%

3.3.8. SVAD weaknesses and constraints

- Low Mebendazole Supply, Parent Motivator
- Low funding for transport from the DPS to the Base.
- No respect of delivery time
- Failure to capitalize on grassroots efforts.
- Kasai Orientale provides partial data;
- The target population remains higher than expected.
- Existence of a parallel data collection system;
- Capitalization of undocumented efforts;
- The Kulana demands the money and refuses the supplementation activity;
- No communication plan at the national level;
- Lack of advocacy from the national level;
- The budget is often limited;
- Failure to achieve national coverage, low funding for activities

3.3.9. Proposals for actions to improve the activities of the SVAD

- CAC community strategies who are familiar with interventions for children;
- Have substantial financial means;
- Strengthen communication activities;
- Carry out biological studies;
- Lobby around vitamin A;
- Have Clear Preschool Counseling—Intensive Community-Based Routinization;
- Mobilize domestic funds;
- Organize Nutrition Forum;
- Strong Government Intervention in activities;
- Lobbying to mobilize actors and donors;
- Look for models that help supplement all other children at an acceptable and sustainable cost;
- Awareness raising and social mobilization;
- Involvement of mobilizers;
- Have an exact count of children 6-59 months based on census

From the SVAD, we noticed the parents demanded other things such as food for their children receiving inputs on the pretext that vitamin A and deworming stimulates the appetite and they do not have the means to feed their children at their thirst

3.4. Progress of SVAD activities in the ECZS

3.4.1. Coordination

- Briefing of the titular nurses and the ECZS;
- Task sharing ;
- Preparatory meeting to find out about the availability of moments in terms of quantity and quality;
- Train central office members by the MCZ
- Develop the timeline, communication plan, key message to be disseminated;
- Do documentation of proof of receipt of inputs
- Develop the budget and coordination plan
- Set the objectives for putting the distribution plan into practice;
- Schedule five (5) ZCB members for activities

3.4.2. Micro-planning

- Respect of timing of the chronogram;
- Develop micro-baking for Vitamin A supplementation activities;
- Brief IT and PRESIDECOSA;
- Develop the summary canvas and the open registers;
- Train BCZ members through the coordination of PRONANUT

3.4.3. Supply of inputs during the activities of the last three rounds of the SVA

- Briefing by ECZS
- Transport of moments by the PRONANUT PROVINCIAL to the ZS
- Development of the distribution plan by the ECZS
- The command chain looks like this (Pronanut-ZS-AS-CAC)

3.4.4. Data managment

- Data collection by the CACs through the summary framework
- Compilation of data by IT and transfer to ZS for validation and sharing with EC.

3.5. RECOMMENDATION AND CONCLUSION

At the end of this report, which presents the results of our study, it should be emphasized that statistics are tools for the implementation as well as the monitoring and evaluation of the various programs and projects. It should be noted, at the end of this study, that the coverage rate for vitamin A supplementation is 91.1% against 98.7% according to administrative data. Deworming coverage is 89.7% against 99.5% according to administrative data.

In addition, this study also highlighted the profile of children not supplemented with vitamin A. These are mainly aged 6-11 months, female, having no family relationship with the respondents, living in poor households in the rural environment and therefore no member of the household was informed of the supplementation campaign before it started. With regard to the profile of non-dewormed children, we note that they are aged between 12 and 23 months, female having other parents as a relationship with the respondents.

As for the reasons for non-supplementation of vitamin A and non-deworming, the main reasons that emerge are: the forgetting of the mother, the absence of the parents and the ineligible age

In view of the results and objectives of this study, we formulate the following recommendations which will make it possible on the one hand to better target the actions, and on the other hand to improve the next data collection activities.

❖ For local actors

- Increase the participation of local opinion leaders in sensitizing the populations, mainly those of very poor households in rural areas, in order to improve the coverage rate of vitamin A and deworming supplementation;
- Develop strategies that take local specificities into account in order to reduce the socio-cultural constraints that lead some households not to submit their children to vitamin A and deworming supplementation;

❖ To the place of the Ministry

- Intensify awareness campaigns on the age of first intake and the frequency of intake of vitamin A and deworming because the knowledge index of vitamin A and deworming remains very low due to insufficient knowledge on the age at first intake and frequency of intake of vitamin A and deworming;
- Review the process for estimating the population in the health zones in order to avoid relatively large discrepancies between the numbers actually counted and the numbers estimated

❖ To technical and financial partners

- To the National Institute of Statistics to be able to activate the updating of its sampling base by organizing a new RGPH in order to facilitate sampling
- Clearly contextualize the questionnaires so as not to retain certain variables that relate to the needs of the country without wanting to neglect the possibilities for regional or international comparisons
- Favor the database system similar to that of the Demographic and Health Surveys (DHS) in which the sub-bases relating to the sub-populations contain all the household variables. For this case, for example, the sex of the head of household variable is missing, knowing that the literature shows that health care varies according to the sex of the head of household.
- Discuss with all stakeholders the content of the final results report.

APPENDICES

APPENDIX 1: STEERING THE PECS KASAI ORIENTAL-2022

TECHNICAL COMMITTEE

- Mr NTAMBWE Nicodem
- Mr NAHIMANA DAMIEN
- Mr VANGU Dieudonné
- Mr LALI Jules
- Mr ELUZI Djeret

HELEN KELLER NATIONAL TEAM

- Ms KABENA Aimerance
- Mr NKOY Hippolyte
- Dr MUTINGAMO Carlos
- Mr NOBELA Eric

HELEN KELLER REGIONAL TEAM

- Dr Romance DISSIEKA
- Dr. Fatou NDIAYE
- Dr Lamine FOFANA
- Mr YAPI Odilon

MANOURE CONSULTANT TEAM

- Mr LUABEYA Martin
- Mr ILUNGA David
- Mr MAMBU Reagan
- Mr PAKA Blanchard

APPENDIX 2: Household questionnaire

I.1 SVAD COVERAGE SURVEY

HOUSEHOLD QUESTIONNAIRE

The information contained in this questionnaire is confidential.

TO READ AT THE SURVEY

Hello Miss, Sir,
My name is (name of the investigator), I work for the NGO MANOURE. We have come on behalf of the Ministry of Health to talk about child health in your community. With the support of Helen Keller International (HKI), INS and Pronanut, the government carried out vitamin A supplementation and deworming of children in the period from June 20-26 . We come to see how it went. We would like to ask you some questions about these health services.
Are there children aged 6 to 59 months in the household? **If not STOP** the interview and thank the survey.
These questions should only take a short time (30 minutes maximum). By participating, you will provide valuable information on how to improve health services in your province. You are free to choose to participate or not, you are also free to refuse to answer any of the questions. However, your opinion is very important in this study. Your answers will remain confidential. We do not collect any information that could identify you such as your name, address or telephone number.

Do you agree to participate in the study? ☐ Yes (continue) No ☐ → END

SECTION 1: GENERAL INFORMATION

No.	QUESTIONS	ANSWERS	CODES
Q1.1	Province	Kasai Oriental	|____|
Q1.2	health area	1. Bibanga 2. Bipemba 3. Bonzola 4. Cilundu 5. Quote 6. Dibindi 7. Diulu 8. Kabeya Kamuanga 9. Kansele 10. Kasansa 11. Lubilanji 12. Lukelenge 13. Miabi 14. Mpokolo 15. Mukumbi 16. Muya 17. Nzaba 18. Tshilenge 19. Tshishimbi	|____|
Q1.3	Locality/District		|____|____|
Q1.4	Area	1= urban 2= rural	|____|
Q1.5	Cluster number (ZD)		|____|____|____|
Q1.6	Household No.		|____|____||____|
Q1.7	team code		|____|____|

Q1.8	Collection agent code		|____|____|
Q1.9	Survey date	/_____/_____/_____/ (day month Year)	|____|____|____|

SECTION 2 : RESPONDENT PROFILE

No.	QUESTIONS	ANSWERS	CODES
Q.2.1.	What is your relationship to the Head of Household	1. head of household 2. Spouse of the head of household 3. Daughter/Son of Head of Household 4. Parent of the head of household or his spouse 5. Other relatives 6. Person not related to the Head of Household 7. Servant 99. Other, specified	
Q2.2	Sex	1=Male 2=Female	|____|
Q2.3	How old are you ?		|____||____|
Q2.4	What is your level of school education?	1=No schooling 2=Primary 3=Secondary 4=College/university	|____|
Q2.5	What is your main activity?	1. Public Sector Officer 2. Farmer 3. Craftsman/liberal activity 4. Retirement 5. 99. Other to be specified	|____|

SECTION 3 : CHARACTERISTICS OF THE HOUSEHOLD

No.	QUESTIONS	ANSWERS	CODES
Q3.1	**What is the main source of water you drink in the household?**	1.Tap water (private) 2.Tap water (public)3.Public protected well4.Private protected well5.Public unprotected well6.Private unprotected well7.Surface water (lake, river, pond, stream …)8.Drilling9.Water source99.Other, specify	|____|
Q3.2	**What types of toilets do members of your household usually use?**	1. Modern WC/flush toilet 2. Improved latrine 3. Traditional latrine 4. Bush (in nature) 99 Other, specify	
Q3.3	**What types of fuels do you use to cook?**	1. Firewood 2. Charcoal 3. Gas 99. Other, specify	
Q3.4	**Main construction materials of the walls of the house** *According to your observation*	1 clay house 2 wooden house 3 Cement house 4 Other, specify	

Q3.5	**Main construction materials of the roof of the house** *According to your observation*	1. In sheet metal 2. In concrete (slab) 3. In tiles 4. In grass 99. Other, specify	
Q3.6	**Main construction materials of the floor of the house** *According to your observation*	1. In earth 2.In cement3. In tiles4.In floor99.Other, precise	
Q3.7	**Do you or anyone in the household have any of the following items in working order?** *Quote the objects*	1.A Radio 2.A Television3.A Watch4.A Mobile Phone0.No objects	
Q3.8	**Do you or anyone in your household have a bank account?**	1.Yes 2.No 3. No answers	

SECTION 4 : ACCESSIBILITY TO HEALTH SERVICES

No.	QUESTIONS	ANSWERS	CODES
Q4.0	**Where is the nearest health facility?**	1.In the village/district 2.In the neighboring village/district99.Other to be specified	|____|
Q4.1	**Where do you go most often for medical care?**	1. Public health facility 2. Private health facility 3. Pharmacy 4. Traditional practitioner99. Other, specify	|____|
Q4.3	**Have you ever brought your child to a health facility just to receive any of the following services?**	1. Vaccination 2.Vitamin A supplementation3.Vitamin A supplementation99.Other, specify0.None of the services	
Q4.4	**How do you assess the cost of the service?**	/accessible 2.Not affordable/not accessible88.Don't know	|____|

SECTION 5 : CAMPAIGN COMMUNICATION STRATEGY

No.	QUESTIONS	ANSWERS	CODES
Q5.1	**Were you informed of the vitamin A supplementation from "June 20 to 26, 2022" before it started (before June 20, 2022)?**	1= Yes 2= No	|____|
Q5.2	**How were you informed of the holding of the SVA and deworming?**	1.Public criers 2.Mobilizers3.Mobilizers4.Community relays5.Volunteer6.Word of mouth7.Person in the household8.Neighborhood9.Radios10.Television11.Posters12.Opinion leaders (Religious, Political,…)99.Other, specify	|____|

SECTION 6 : LEVEL OF HOUSEHOLD KNOWLEDGE OF VITAMIN A

No.	QUESTIONS	ANSWERS	CODES
Q6.1	**Do you know what this product is called? (Vitamin A)**	1.Prevents blindness/helps vision (see well) 2.Promotes growth3.Protects against disease4.Protects against anemia5.Reduces risk of death6.Improves children's health7.Increases appetite 88.Ne don't know99.Other, specify	|____|
Q6.2	**Do you know what this product (vitamin A) is for?**	1.Prevents blindness/helps vision (see well) 2.Promotes growth3.Protects against disease4.Protects against anemia5.Reduces risk of death6.Improves children's health7.Increases appetite 88.Ne don't know99.Other, specify	|____|
Q6.3	**At what age should children receive their first dose of vitamin A?**	1. Less than 6 months 2. At 6 months 3. More than 6 months 88. Don't know 99. Other, specify	|____|
Q6.4	**How many times a year should a child receive vitamin A?**	1.1 times 2.2 times 3.3 times 88. Don't know 99. Other, specify	|____|
Q6.5	**Who/Where did you get your vitamin A knowledge from?**	1. Health personnel 2. Distributor/community relay 3. Radio/Television/Print media/Social networks 99.Other, specify	|____|
EL LEVEL OF KNOWLEDGE OF Albendazole			
Q6.6	**Do you know what this product is called? (Deworming)**	1.Prevents blindness/helps vision (see well) 2.Promotes growth3.Protects against disease4.Protects against anemia5.Reduces risk of death6.Improves children's health7.Increases appetite 88.Ne don't know99.Other, specify	|____|
Q6.7	**Do you know what this product (Deworming) is used for?**	1.Prevents blindness/helps vision (see well) 2.Promotes growth3.Protects against disease4.Protects against anemia5.Reduces risk of death6.Improves children's health7.Increases appetite 88.Ne don't know99.Other, specify	|____|
Q6.8	**At what age should children receive this product (deworming)?**	1. Less than 6 months 2. At 6 months 3. More than 6 months 88. Don't know 99. Other, specify	|____|

Q6.9	**How many times a year should a child receive the deworming?**	1.1 times 2.2 times 3.3 times 88. Don't know 99. Other, specify	|____|

SECTION 7 : QUALITY OF VITAMIN A ADMINISTRATION ACTIVITIES

No.	QUESTIONS	ANSWERS	CODES
Q7	**Did vitamin A supplementation take place in your area?**	1. Yes 0. No88. Do not know	|____|
Q7.0	**Agent distributors / administrators came to your house here?**	1. Yes 0. No88. Do not know	|____|
Q7.1	**What did the distributor tell you about the vitamin A he gave your children?**	1. Protect eyesight 2. Growth 3. Good nutrition 4. He didn't say anything 99. Other, specify	|____|
Q7.2	**What did the dispensing agent/administrator tell you about the deworming he gave to your children?**	1. Eliminate worms 2. Fight against anemia3. Good nutrition 4. He didn't say anything 99.Other, specify	|____|
Q7.2a	**Was there any other information the distributor gave you?**	1. Yes 0. No88.Don't know	|____|
Q7.2b	**If so why ?**	---------- - ---	

SECTION 8 : CHILD QUESTIONNAIRE:

Report the response codes in the column corresponding to the child

No.	QUESTIONS	ANSWERS	Child 1	Child 2	Child 3	Child 4	Child 5
	Last name						
Q8.1	What is the sex of the child	1=Male 2=Female	|____|				
	Do you know the date of birth of the child? **ASK TO SEE ANY DOCUMENT WITH THE** RECORDED DATE OF BIRTH	1. Yes 0. No	|____|				
Q8.2	What is the date of birth of the child	DD/MM/YYYY (take children born between 02/21/2016 and 08/21/2020)	_/_ /__/	_/_ /__/	_/_ /__/	_/_ /__/	_/_ /__/
Q8.2.1	Ask for the child's age in completed months *Using Event Calendar*		|____|				
Q8.3	What is the source of this information?	1=Health record 2=Birth certificate 3= Parent's claim, without source of verification 88=Other to be specified	_/_ /__/	_/_ /__/	_/_ /__/	_/_ /__/	_/_ /__/
CHILDREN'S QUESTIONNAIRE: VITAMIN A							
Q8.4	During the SVA from June 20 to 26, 2022	1. Yes 0. No	|____|	|____|	|____|	|____|	|____|

	which has just ended, did the child receive vitamin A?						
Q8.4a	Who gave the Vitamin A capsule to the child?	1 Distributor 2 Mother/father/caregiver 3 The child himself	|____|	|____|	|____|	|____|	|____|
Q8.4b	What was the capsule cut with?	1 scissors 2 Blade 3 Teeth 4 Nail 5 Other to be specified	|____|	|____|	|____|	|____|	|____|
Q8.5	Where did he get it?	1 Here at home 2 At the Community Outreach House/Distributor 3 Village/neighbourhood health facility 4 Health facility from another village/district 5 School/church/mosque 6 Street/market 7 Other place in the village/neighborhood 8 Other place outside the village/neighbourhood 88 Don't know 99 Other, specify	|____|	|____|	|____|	|____|	|____|
Q8.6	Why did the child not receive this product during this campaign?						
Q8.7	Relationship to the child						
CHILD QUESTIONNAIRE: DEPARASITATION							
Q101	During the distribution from June 20 to 26, 2022 which has just ended, did the child receive the deworming agent? *(Show a pill or photo of dewormer)*	1 Yes 2 No 3 Don't know	|____|	|____|	|____|	|____|	|____|
Q10.1a	Who gave the deworming to the child?	1 Distributor 2 Mother/father/guardian under the supervision of the distributor 3 The child himself under the supervision of the Distributor 4 Simply handed over to caregiver or child					
Q10.1b	What did the dispensing agent tell you about the deworming he gave your children?	1 Poliomyelitis prevention 2 Stomach aches 3 Protects against diseases 4 Protects against anemia 5 Improves the health of children 6 He Didn't Say Anything 99 Others					
Q10.2	Where did he get it?	1 Here at home					

		2 At the Community Outreach House/Distributor 3 Village/neighbourhood health facility 4 Health facility from another village/district 5 School/church/mosque 6 Street/market 7 Other place in the village/neighborhood 8 Other place outside the village/neighborhood 88 Don't know 99 Other, specify					
Q10.3	Why did the child not receive this product during this distribution?	1 The child was absent 2 Agents Haven't Passed By 3 Agents no longer ironed 4 Not informed 5 The Child Was Sick 6 Refusal 7 Lack of products 8 The Child Wasn't 12 Months Old 88 Don't know/Don't remember 99 Other, specify					

SECTION 14 : COVID-19

No.	QUESTIONS	ANSWERS	CODES
Q14.0	Are you vaccinated?	1. Yes 0. No	|____|
Q14.1	Would you be willing to get vaccinated against Covid-19	1 Yes 2 No	|____|
Q14.2	Why ?	1 Fear of contracting COVID-19 2 Afraid they'll administer a COVID-19 vaccine 3 Mistrust of the vaccine 99 Other specify	|____|

SECTION 8 : HOUSEHOLD DIETARY DIVERSITY ASSESSMENT QUESTIONNAIRE

READ: Now I would like to ask you yes or no questions about the foods and drinks you ate yesterday during the day or night, at home or elsewhere. First, I would like you to think back to yesterday, from the moment you woke up until nightfall. Think about the first thing you ate or drank after waking up in the morning. Think about where you were when you ate or drank anything in the middle of the day. Think about where you were when you had your evening meal (if you had one), any food or drink you had during the evening or night, and any other snacks or drink that you consumed between meals during the day or at night. I would like to know if you consumed the foods that I am going to mention, even mixed with other foods. Please listen to the list of foods and drinks and answer "yes" if you have consumed ANY OF THEM

No.	QUESTIONS	ANSWERS	CODES
Q8.1	**Did you eat any of the following foods yesterday?**	1.Rice, bread, spaghetti, macaroni, corn couscous, corn or rice porridge? 2. Braised or boiled corn, millet, or sorghum? 3. Cassava, bobolo or cassava stick, cassava fufu (coumcoum), water fufu, yam, potato, potato, macabo, or plantain?4. Beans, koki or crushed apple cowpea, voandzou or moto, or soy powder?	|Y|N| |Y|N| |Y|N| |Y|N| |Y|N| |Y|N|
Q8.2	**Did you eat any of the following vegetables yesterday?**	1. Carrots, squash (Melon) or pumpkin? Cassava leaves, folong, foléré leaves, okok or eru, zom leaves, okoribong, or ndolé leaves? 2.Ekwang, kelen kelen leaves, water leaves, sweet potato leaves, or cowpea leaves? Tomatoes, eggplant, jakkatou, cabbage, cucumber, or zucchini? Okra, bell pepper, green beans, mushrooms, or salad?	|Y|N| |Y|N| |Y|N| |Y|N| |Y|N| |Y|N|
Q7.3	**Did you eat any of the following fruits yesterday?**	1. Mango or papaya? 2. Orange, tangerine or grapefruit?3. Ripe banana, pineapple, plums or avocado?4. Guava, watermelon, saba saba / soursop, or fruit picked or collected in the forest?	|Y|N| |Y|N| |Y|N| |Y|N| |Y|N| |Y|N|
Q7.4	**Did you eat any of the following sweets yesterday?**	1. Cookies, donuts, pancakes, or croquettes? 2. Candies, chocolates, peanut toffee, ice cream, or lollipop	|Y|N| |Y|N|
Q7.5	**Yesterday, did you eat any of the following foods of animal origin**	1.Eggs? 2. Cheese or The Laughing Cow?3. Yoghurt, curd or kossam, pendidam or dakéré?4. Sausage, ham, corned beef, or pâté?5. Beef, mutton, goat, or offal from these animals (tripe, liver, lung, tongue)?6. Pork or bushmeat?7. Chicken, turkey, duck, quail, pigeon, goose, guinea fowl?8. Fresh fish, frozen fish, smoked fish, muandj'a moto / sout da mokka, canned sardines, or prawns	|Y|N| |Y|N| |Y|N| |Y|N| |Y|N| |Y|N| |Y|N| |Y|N| |Y|N| |Y|N| |Y|N| |Y|N|
Q7.4b	**Did you eat any of the following other foods yesterday?**	1. Peanut, peanut paste, peanut sauce, peanut meal, pistachio, pistachio meal, or mango kernels/ndo'oh? 2. Chips like Pringles or Kelon, or shrimp fritters? 3. Indomie (precooked noodles)? 4. Potato fries, french fries, fried plantain/dodo, fried chicken, or fried fish?	|Y|N| |Y|N| |Y|N| |Y|N| |Y|N| |Y|N|

Q7.5	**Did you drink any of the following drinks yesterday:**	1.Liquid milk or powdered milk? 2. Sweet coffee, sweet tea, sweet chai, or hot chocolate like Ovaltine or Matinal? 3. Soft drinks or juices like Coca Cola, Fanta, or Top, Malta, or energy drinks like Red Bull or XXL?	|Y|N| |Y|N| |Y|N|

Thank you very much for your willingness to participate in this study.
Have a great day!

APPENDIX 3: Interview guide

I.8.3.1.1. Understanding the activities of vitamin A supplementation and deworming

Subtopic	Categories	Verbatim
Understanding of CAC members on the formation and activities of the SVAD	Design of SVAD activities	R 1 : "By the way, for me, the role of Reco during SVAD activities is to mobilize the population, distribute products (vitamin A and Mebendazole and/or Albendazole, pointer on the sheet". R 2 : “well, when we walk, we have a bamboo stick to measure the height of the child before giving him the albendazol. Regarding vitamin A, we have two kinds of red capsule and green capsule, this for children from 6-59 months but the red capsule is only administered to children from 12-59 months. In case of lack of green vitamin A, we give half of a red vitamin A capsule.”:
	Reflective return	R 3 : “We had the sheets (among other things, the summary sheets, the counting sheets and the supervision canvas) so, apart from the sheets, nothing more and we managed to buy them. » R 4 : "by the way hmmm, we were trained for vitamin A and Abendazole supplementation, but also he showed us the importance of the product which, according to him, contributes to the good vision of the child, spares him from diseases , good growth, fight against child malnutrition, etc.” R 5 : "If there was a training medium that succinctly traces the age of the child's SVAD"
	Communication strategy	R 6 : "The content of this support shows us the different ages that the child must be supplemented with, such as the age of 23-59 months, it is necessary to deworm but on hygiene measures and especially in a context of covid-19" R 7 : "same as the previous speakers". R 8 : "We have a local radio which has enabled us to approach distant relatives through activities such as fields, shops and others, finally to inform them of the campaign on supplementation of vitamin A and 'Albendazole'. R 9 : “the Health Zone gave us megaphones & batteries to raise public awareness, by raising awareness we are showing the population the importance of SVAD while respecting the barrier gestures of covid-19”. R 10 : “For me, the communication strategy for the implementation of the SVAD is specifically in the text of the covid-19, bah. Generally, there is a mobilizer who gets up very early in the morning around 4:00 a.m. to play the role of town crier until 6:00 a.m. and that in the evening. aforementioned age for the SVAD au inform the parents to collect the original forms in the health areas...”.

At the end of this box, we have a sub-theme which revolves around three categories, namely: Design of SVAD activities, Reflective feedback and communication strategy.

I.8.3.1.2. Level of integration of community relays in SVAD activities

Subtopic	Categories	Verbatim
Negative and positive aspects of CAC members on SVAD activities	Promptitudes and attitudes on the SVAD	R 1 : “generally, parents are happy even if there are still those who express their dissatisfaction by saying that these products are not vitamin A & Deworming, in this covid-19 context. The others still openly say it is vaccine to kill their children and some hide the children it is only after our explanations that they accept so that the children are supplemented”. R 2 : “well, many parents accept and moreover testify by saying when our children take these products and their health improves. » :

Negative aspect	Constant of parents on the SVAD Parental resistance to SVAD	R 3 : “Other parents are even asking for it because the SVAD has proven itself in the health problems of our children. » R 4 : "Hmmm, the parents have a good attitude about the SVAD, moreover some of them ask that we can also bring for the adults, etc." R 5 : “The populations insist on the fact that the financial backer also organizes a campaign to distribute drugs against blindness, cataracts, large parasites in adults.” R 6 : “uh! some parents also confuse SVAD with food distribution activities despite the explanations provided to them, otherwise the majority are happy to see us come to give these products to their children, I don't think I found the opposition as such during this campaign but some people are afraid to see children taking these products but we always manage to convince them” R 7 : “same as the previous community relays”. R 8 : “Some parents claim that the products arouse a certain hunger in the children because it excessively stimulates the child's appetite, yet the current situations do not allow them to feed the children their fill. ". R 9 : "to complement the other colleagues, let me enlighten you to say that some parents think that the partner must think of large-scale supplementation, therefore, according to them, it would be important to also give vitamin A to the parents to be able to reduce the question of blurred vision in adults”. R 10 : “We came across such difficulty that, the other parents think in time, we distribute flour and other products. So for them, we must associate other things for the survival of children with these pharmaceutical products...”.

At the end of this box, we have two sub-themes (Negative and positive aspects of CAC members on the activities of the SVAD) *which revolve around three categories, namely: (* Promptitudes and attitudes on the SVAD, Constant parents on SVAD and Parental resistance to SVAD *).*

I.8.3.1.3. The experiences of CAC members vis-à-vis the activities of the SVAD

Subtopic	Categories	Verbatim
Situations experienced by CAC members in SVAD activities	Essay practiced during SVAD activities Materials used Language spoken for the distribution of vitamin A and Albendazole Households visited	R 2 : "Well, the method that is used here at home uses our local language to facilitate communication and understanding of the activities of the SVAD, this language helps us to transmit with a megaphone, we also have the files to fill door to door in households where there are children of SVAD age”: R 1 : "According to my experience, we need the following materials: •scissors •Counting sheet •Masks •Hydro-Alcoholic Gel". R 3 : “We had the sheets (among other things, the summary sheets, the counting sheets and the supervision canvas) so, apart from the sheets, nothing more and we managed to buy them. » R 4 : “Here at home, we put vitamin A in sachets during supplementation in the field. And we also convey its importance to parents and ask them to take precautions about covid-19 disease. And we visited 23 households personally.” A 5 : “We have explained to parents the roles that these two products respectively play and I think I have visited 20 households. And the tools were the bags that allowed us to distribute the products. Regarding the language spoken, we had Tshiluba” “We also had instructions such as respecting the dose according to the age of the child, so for vitamin A, a child of 6-59 months takes half a capsule red considering its concentration, if there is not the green capsule and that of 12-59 will take the whole red capsule”;

	Schedule of SVAD activities Advice given	A $_{6}$: “We explained that vitamin A protects the eyes and Albendazole to fight against worms, and we had visited 45 households in total, given the size of our neighborhood. But we did not know how to distinguish ourselves by our people. In short, we need special clothing so that the community relays are differentiated from other categories of staff" "I have already visited 207 households since last year but overall since I have been in this work, I think I visited 800 to 900 households” R $_{7}$: “As for me, I visited 54 households in total and the Tshiluba language made it possible to convey the message within the population. We noted the absence of equipment and the special clothing that could help us to make a distinction vis-à-vis this work among the population”. R $_{8}$: “we know that there are children whose availability is in the morning and those in the afternoon so we know the schedule for each household in our neighborhood”. “We know that there are children whose availability is in the morning and those in the afternoon. So we know the schedule for every household in our neighborhood.” R $_{9}$: “we have set ourselves a program between us members of the team to meet the children whose parents work in the mornings and the other afternoons. And as a tip, we should avoid dropping vitamin A capsules on the floor.” R $_{10}$: "We provide advice to parents on the cleanliness of the body and ask them to give vitamin food, without forgetting the diversification of food each time in order to guarantee good growth and avoid diseases such as malnutrition". "We advised mothers to eat caterpillars, vegetables and foods such as soybeans well to provide mothers' milk to newborns". "We also told the parents to eat well and also feed their children in the households, but we noticed that some mothers give boiled food to the children before they are six months old and they, in turn, asked us to ensure that the partner also adds other products and something to eat to us so as to ensure the health of the children and their parents”

At the end of this box, we have a sub-theme which revolves around three categories, namely: (Design of SVAD activities, Reflective feedback and communication strategy).

I.8.3.1.4. Tracks of the solutions envisaged to push back the limits and the difficulties of the overall implementation of the activities of the SVAD

Subtopic	Categories	Verbatim
Solutions considered by CAC members in the activities of the SVAD	Corrective measures for SVAD activities	R 2 : "well, by the way, give us a lot of logistical means like a megaphone, but also think about giving us an incentive bonus": R 1 : “in my experience, that the Health Zones design the key messages in real time and not late as they are used to”. R 3 : "for me, it is necessary to balance the inputs because they give a lot of vitamin A and not too much deworming instead of giving the same quantity for both, in addition to that when they send a lot of vitamin How are we going to keep this? » R 4 : “Here at home, we put vitamin A in sachets during supplementation in the field. And we also convey its importance to parents and ask them to take precautions about covid-19 disease. And we visited 23 households personally.”
	In view of the difficulties encountered during the SVAD	R 5 : “We have financial difficulties because we don't even know how to buy soap at home, but we still have to do the work of the nurses. This is how we ask the partner to kindly ensure that the community relays are also paid » « We ask, the means of communication, a salary, a bicycle, an outfit and a registration number because we have many years in the work and we are criticized a lot but we do not get anything”; R 6 : "we are doing a great job but no one takes care of us, which is why some of us are retracting but we continue because, we are aware and we love the population but we want the partner gives us a salary in relation to the work we do on the ground" "We are not considered because we are not given a snack, we are marginalized and yet we sacrifice a lot for this work" R 7 : "As for me, we have a difficulty such as for example we who are community workers, work a lot but we do not touch much capable of motivating us so that this work goes forward and ask the partner to want to solve our problem”.
	Corrective actions	R 8 : “we know that there are children whose availability is in the morning and those in the afternoon. So we know the schedule for every household in our neighborhood.” "We know that there are children whose availability is in the morning and those in the afternoon so we know the schedule for each household in our neighborhood." "As you have followed by my colleagues, there are other parents who have left with the children in the fields, but we do not know how to follow them to supplement the latter, because we have seen them return after the campaign" "We have reasons that push us not to supply other households because we found a case of a child who has a fever, and for that we avoid problems with the parents because we have had one. who had laid a trap for us” R 9 : "Given the quantity of products that we have, we think it is minimal compared to the target or the population that we have as my predecessor pointed out, we see the children who were in the fields coming back but we we no longer have the products in stock for them. We ask that the products be given to us in large quantities”. “We kindly ask you to give the Albendazol even after one month” “we need equipment like scissors, hydro-alcoholic gel to do this job well.” R 10 : “We see that in our province we do not have enough activities to feed these children but we beg you to please add more to those we have received or to those you are giving us. And big thanks to Mom Helen Keller.

At the end of this box, we have a sub-theme which revolves around three categories, namely: (Design of SVAD activities, Reflective feedback and communication strategy).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