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Theme: Stages of implementation of food fortification at home in the health districts of Maroua 1, 2 and 3 in COVID 19 context and creation of nutrition activities support group

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Abstract

To overcome micronutrient deficiencies and reduce growth retardation in children from 6 to 23 months, the Ministry of Public Health with the support of partner UNICEF has implemented a Home Fortification program based on micronutrient powders in the health districts of Maroua 1, 2 and 3, Far North region, Cameroon. The methodological approach consisted of training health providers, community health workers, and support groups in nutrition activities. But also the holding of community dialogues, the counting and screening of children from 0 to 59 months and the actual distribution. The results obtained in the implementation

show that 33 health providers and 360 CHWs were trained respectively, but also 120 NASG at the rate of 10 people per NASG. At the end of three bimonthly distributions, the results show that 117,438 children were counted, 57,403 received the MNP'S, 2,378 parents attended the nutritional demonstration sessions and 13,460 HV were carried out in the health districts of Maroua 1, 2 and 3. In perspective, it will be a question of extending this program to other districts/in perspective, this program will have to be extended to other districts.

Keywords: Home Fortification, Micronutrients, Malnutrition, Stunting, Far North Region

Introduction

In 2016, the United Nations adopted the Sustainable Development Goals (SDGs) for 2030, which places particular emphasis on ending hunger, ensuring food security, improving nutrition and promoting sustainable agriculture (Cameroon Food Guide, 2016). In Cameroon, the Far North region is the most affected by malnutrition. The prevalence of wasting is 5.2%, of which 1.4% is in its severe form. As for stunting, its prevalence is 38.2% (SMART 2019) ^[3], 63.5% of children under five are anemic (EDS, 2018).

Infant and young child feeding practices (IYCF) are particularly inappropriate, explaining why stunting remains high. These IYCF practices consist of early initiation of breastfeeding, exclusive breastfeeding, and timely initiation (at six months) of solid, semi-solid foods with continued breastfeeding (6- 23 months or beyond).

Unfortunately the IYCF indicators according to the 2019 SMART nutritional survey show that the early initiation of breastfeeding is 26.1%, the exclusive breastfeeding is 23.1%, the introduction of solid or soft foods at 6 months: 66.7%, minimum dietary diversity: 26.7%, minimum acceptable dietary intake: 19.7%

Despite the efforts made by the Ministry of Public Health and its partners dealing with infant and young child feeding, bottlenecks persist:

- The low level of training of service providers and community actors, making it impossible to advise and support women on optimal infant and young child feeding;
- Poor health coverage;
- Weakness in scaling up programs;
- Insufficient monitoring of programs;
- Negative attitudes and behaviors of agents at the level of health structures for IYCF support;
- Beliefs and myths about IYCF;

These suboptimal infant and young child feeding practices are major barriers to acceptable nutritional status and contribute to the maintenance of high rates of stunting/failure to thrive in children.

In order to contribute to improving the nutritional status of children in the region, the Government of Cameroon in partnership with UNICEF is implementing the Program for the management of acute malnutrition case, HFF coupled to Infant and Young Child Feeding (IYCF). However, appropriate and effective response mechanisms have not been fully put in place at the operational level.

In view of this situation, the need to set up a community organization (support groups) arises in order to promote essential family practices.

General objectives

Contribute to improving the nutritional status of children in the region and also the performance of the integrated package for the prevention of malnutrition in the district.

Specific objectives

- Know the stages of HFF implementation
- Organize community dialogues with leaders for community engagement and identification of NASG members;
- Set up and train members of support groups for nutrition activities in the district of Maroua 1;
- Monitor and evaluate activities

General and Health map of the region

The Diamare department is one of the six departments that make up the Far North region. It is bounded to the North and North-East by the Department of Logone and Chari, to the East and South-East by the Department of Mayo-Danay, to the West and North-West by the Mayo Tsanaga and in the South by the North region. The department of Diamare is located in the heart of the region and the climate is tropical of the hot Sudano-Sahelian type. It rains an average of 700 millimeters of rain per year. Precipitation is concentrated between the months of June and September. The rainy season lasts three months. Temperatures are variable. They are of the order of 25 ° C in the cool season, 30 ° C in the rainy season and peak at 45 ° C in periods of high heat. The population is 566,921 inhabitants with an area of 4665Km² and is made up of three health districts: Maroua 1, 2 and 3.

Covid-19 provisions

The establishment of the ADF took place in the context of Covid-19. Related provisions have been taken in accordance with the measures decreed by the government, in this case:

- Systematic wearing of a mask;
- Hand washing;
- Grouping in small numbers ...

Stages of HFF implementation

Development of the schedule of activities

A timeline of activity was developed over time, from training providers to distributing micronutrient powders.

Training of health providers

The training concerned the providers of the health areas of the districts of Maroua 1, 2 and 3 on HFF coupled with IYCF in two sessions. Out of which thirty-three (33) healthcare providers were trained.

The methodology used was the participatory approach based on the principles of adult learning. This approach uses the hands-on learning cycle method and prepares participants for the practical application of the skills. It also included the use of Counseling materials, visual aids, demonstrations, group discussions, case studies, role plays, and field practice.

The classroom demonstration sessions and field practices formed a central point of the training, with an emphasis on counseling skills and the effective use of the picture box. The competency-based participatory training approach reflects the key principles of Behavior Change Communication and emphasizes the use of micronutrient powders in children 6 to 23 months old.

Training of Community health workers (CHWs) in health areas,

360 CHW, (Fig 1) main actors in the success of this community activity were trained in community IYCF by providers who were previously trained at the regional level precisely 120 from the Health district of Maroua 1, 125 for the district of Maroua 2 and 115 from the district of Maroua 3. At the end of the training, they were expected to carry out the distribution of MNP's in their respective villages, carry out the home visits and report the activities carried out during the month.

Community dialogue in health areas, bringing together influential members of the community

After the training sessions, six community dialogue sessions were held in the three districts (Two dialogues/district). Were invited to these sessions administrative, traditional and religious authorities (Fig 2). Several aspects of this program were discussed, as well as the promotion of health activities such as EPI, RH.

Numbering of children aged 6 to 23 months who constitute the target

All the children from 0 to 59 months were counted in the health districts of Maroua 1, 2,3 before the distribution of micronutrient powders (Fig 3). These are 117,438 children, including 57,403 aged 0-23 months.

Distribution of micronutrient powders.

After the count, micronutrient powders were distributed to the children. The methodology adopted is that of door to door because of/due to the covid-19 context.

Data collected

Data was collected using data management tools, including the district and regional distribution registers of MNP's, breastfeeding registers for children aged 0 to 6 months and supplementary food registers for children. children 6 to 23 months old.

Implementation process of Nutrition Activity Support Groups

The implementation of NASG was done done gradually using the following steps:

- Preparatory phase;
- Community dialogue
- Identification and selection of NASG members;
- Implementation and training.

Composition of the NASG

The number of support group members in a village is determined by the average population. The NASG is made up of 5 to 15 members. It can be made up of the following people: Village chief and or religious leader, Recycled Traditional Midwives, Breastfeeding women who have practiced exclusive breastfeeding and complementary feeding with a well-nourished child (mother model or experienced), Grandmothers / Stepmothers / Stepfathers, Experienced mothers or mother leaders, traditional healers, Civil status officers in the villages (responsible for registering births). It is important to note that it is necessary to have a literate person in each group who will serve as the reporter or leader of the group.

Training

The training of the NASGs consisted of the participatory method based on the preliminary knowledge survey followed by a summary of the technical content. It was done in several stages: Pre-test, Why IYCF is important, Common situations that can affect IYCF, how to counsel, breastfeeding, complementary feeding for children 6-24 months, nutrition for pregnant women, feeding of the sick child, hygiene promotion, screening, animation of support groups (nutritional demonstration), filling in the register and report, post-test.

This training was provided by the person in charge of the health center, in charge of communication more animator of NGO with the support of a manager of the health district and / or staff of NGO working in the districts as well as the Regional Health Delegation. For this, all members per group will be trained at the same time with a total of 20 to 30 participants per session.

At the end of the training sessions, NASG were expected to have:

- The knowledge and tools to enable them to effectively promote key behaviors of nutrition, hygiene and cognitive stimulation, as well as the correct use of micronutrients and the detection of cases of malnutrition.
- The experience and tools to plan and carry out a caregiver education session.

Nutritional education

After the distributions of MNP's, nutritional education sessions are carried out. The goal was to sensitize mothers

on the topics of prevention of malnutrition in the event of exclusive breastfeeding, the preparation of complementary food, 5-star porridge for children who have reached six months of age from local foods. A total of 1,284 sessions were carried out in the three health districts

Nutritional demonstration

From six months of age, breast milk is no longer sufficient for the child, This is why the FAO / WHO recommend the manufacture, based on available and accessible local products, of complementary foods of sufficient nutritional quality, with a view to meeting the nutritional needs of the African child (Beaufrère *et al.*, 2001; Salle, 2009) ^[1, 2]. It is for this reason that mothers in addition to breast milk must learn to feed their children with complementary foods of good nutritional value learned through 2768 nutritional demonstrations carried out by the NASG in the community or at the health facility level. by CHW (Fig 4).

Home visit

13,460 home visits were carried out by the CHW while respecting the barrier measures. Different themes were discussed: nutrition, vaccination... (Fig 5)

10- Recruitment of monitors in ADF implementation and health facilities promotional activities

Justification

To overcome the shortcomings of the programs implemented in the fight against malnutrition, the government with the help of its partners have placed emphasis on prevention through strategies such as IYCF coupled with HFF. However, field reports of the multiple strategies and programs for the prevention and management of malnutrition show that programs are not subject to adequate monitoring for better ownership by the community and in the health districts after the departure of implementing partners.

Results obtained

1. Monitoring of activities with close and training supervision
2. Follow-up of health promotion activities from health facilities to EPI, RH, PNC, etc.
3. Support for monthly activity reporting
4. Supervision of activities carried out by CHW and NASG
5. Monitoring of nutritional inputs in health areas



Fig 1: Training of CHW in the health areas of Domayo Djarma and Ouro Tchede, DS of Maroua 1



Fig 2: Community dialogue sessions



Fig 3: Enumeration of households by a CHW



Fig 4: Nutritional demonstration sessions: five-star porridge in the health areas of Katoual and Ouro tchede



Fig 6: Instructor support for promotional activities



Fig 5: Home visit carried out by a community health worker

Conclusion

The general objective of this project is to improve the nutritional status of children in the health districts of Maroua 1, 2 and 3 through micronutrient powders. As a first step, the health personnel were trained together the CHW. This program made it possible to involve the communities in the monitoring of activities through the realization of community dialogues and the training of NASG. 57,403 packets of MNP's were distributed to children, 2,378 nutritional demonstration sessions were carried out and 317 children were referred to health facilities. In perspective it will be a question of :

- Scaling up health districts HFF in the region
- Scaling up NASG
- Recruitment of monitors in other HFF districts
- Integration of activities in the districts in collaboration with other programs

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List of abbreviation

- CHW: Community health worker
- IYCF: Infant and Young Child Nutrition
- HFF: Home Food Fortification
- HV: Home visit
- NASG: Nutrition Activities Support Group
- PEC : Supported
- EPI : Expanded Program of Immunization
- RH: Reproductive Health
- MNP's: Micronutrient Powders
- NGO: Non Governmental Organisation

References

1. Beaufrère B, Briend A, Ghisolfi J, Goulet O, Putet G, Rieu D. Nourrissons, enfants et adolescents. In AFSSA, CNERNA-CNRS. Apports nutritionnels conseillés pour la population française 3ed Tec et Doc ed Londres-Paris New York, p 255-291. Bulletin de la Société Royale des Sciences de Liège. 2001; 80:748-758.
2. Salle B. Alimentation du nouveau-né et du nourrisson. Bulletin Académie Nationale de Médecine. 2009; 193(2):431-446.
3. SMART. Rapport enquête nutritionnelle SMART 2019 au Cameroun, 2019.
4. Guide alimentaire du Cameroun, 2016, 71p.
5. UNICEF. Améliorer la nutrition de l'enfant un objectif impératif et réalisable pour le progrès mondial, 2013, 124p