REPUBLIC OF RWANDA

MINISTRY OF HEALTH

unicef

Evaluation of processes and perceptions on the Community Based Nutrition Program (CBNP) in Rwanda

August- December 2010

List of abbreviations

CBN	Community Based Nutrition
CBNP	Community Based Nutrition program
CMR	Child mortality rate
ECD	Early Childhood Development
GoR	Government of Rwanda
IGA	Income Generating Activities
IMCI	Integrated Management of childhood infections
INGOs	International Non Government Organisations
ISAR	Institut des sciences Agronomiques du Rwanda
MED	Ministry of Education
MOH	Ministry of Health
MUAC	Mid upper arm circumference
NNP	National Nutrition Policy
OVC	Orphaned and vulnerable children
RDHS	Rwanda Demographic Health Survey
W/A	Weight for Age
W/H	Weight for Height
H/A	Height for age

Acknowledgements

The evaluators would like acknowledge the Ministry of health and UNICEF for organising this evaluation. In particular the Ministry of health extend their sincere gratitude to the following parties who contributed immensely towards the implementation and success of this evaluation;

The Maternal child Health coordinator, Dr Fidel Ngabo for all the support given during the entire planning and evaluation process.

MOH staffs especially the nutrition desk: Alphonsine Nyirahabineza, and Dassan Hategekimana for their day to day input during their evaluation and the in kind support regarding all anthropometric materials used in this evaluation.

UNICEF staffs and consultants based in Kigali, particularly Dr Abiud Omwega, Dr Friday Ngwaigwe, Christine KALIGIRWA, Angèle Razafinombàna, and Peter Kingori for their technical support throughout the planning, field visits and report writing.

Nutrition Technical Working Group for their active facilitation and support in the whole planning and implementation of the exercise.

All Districts and health Facilities staffs who actively participated directly and indirectly in the evaluation.

All stakeholders who supported and shared their in country experiences related to CBNP.

Without the financial support from UNICEF who funded both the implementation and evaluation of CBNP and the evaluation, without which this exercise would not have succeeded.

This study was conducted by 2 independent, external consultants: Mrs Esther Ogonda McOyoo and Venuste RWAMFIZI

Executive summary

For the last two decades, under nutrition remains a significant public health problem contributing to the high infant, child and maternal mortality. The nutritional situation in Rwanda remains persistently poor as a result of a combination of underlying factors. After the 1994 genocide, the nutrition activities done in collaboration with the Ministry of Health, the UN, and several NGOs focused on rehabilitation of children that were severely malnourished. Growth monitoring for children at health facilities stopped at one year with the completion of immunization program. Preventive and long term approaches were required to build the capacities of families and communities to provide adequate nutrition.

The community-based nutrition program (CBNP) implemented by MOH and supported by UNICEF and was set up with this background and has been ongoing since 1998. CBNP activities are conducted at the smallest administrative unit, Umudugudu, by Community Health Workers (CHWs) under the supervision of HCs, the District hospitals and with close collaboration of the local authorities. Currently, UNICEF funded CBNs are implemented in 3602 villages, at least 96 HC, in 14 district hospitals in 13 districts. The main objective of CBNP is to reduce and prevent the high malnutrition rate among under 5 children, pregnant and lactating mothers.

MoH and UNICEF proposed to conduct an evaluation of this program to document the progress of the programs and learn from the experiences before scaling up the approach. This evaluation was done in 7 districts with the aim of documenting the CBNP process (es) being applied at the community level and assess the program's perception and cost effectiveness. The study was mainly descriptive, employing both qualitative and quantitative methods. In addition to document review, participatory approaches were used including key Informants Interviews and Focus Group Discussions (FDGs) during field visit to 7 districts: 2 purposefully chosen and 5 randomly sampled. 5 teams, each consisting of 3 trained persons were used to collect the data from 8th to 22nd September. The findings were not the same in all the districts, although a lot of similarities were observed. The evaluation focused on the following aspects:

The CBN process is similar in all the districts

In all of the districts visited, the CBN process followed almost a similar process. The main steps followed for the implementations included initial discussions with the nutrition desk and UNICEF on and budget implications, sensitization, for the local authorities, and health staff on the importance of the approach. Training of staff responsible for nutrition and health centers by the Hospital and the MOH Nutrition Desk and UNICEF on the objectives, orientations CBNP, the package of activities and organizational aspects of the CBN followed by identification of villages where the program was to begin was then done and Provision of basic equipment for the community growth monitoring.

Nutrition situation is more significant in the districts with CBNP

Based on the prevalence rates established amongst CBN participants measured in this evaluation, participants have a significantly[1] better nutritional status (2.4% wasted) than the overall national 2009 CFSVA prevalence global acute malnutrition rates of 4.6% hence CBN participants are less wasted. However the prevalence of underweight is almost similar in both CBN and national prevalence rates, (15.4% and 15.8% respectively, CI overlapping). Of significant concern however is the high prevalence of stunting, whereby 1 out of every 2 children is too short for their age even among the CBN participants. There was also no significant difference in stunting prevalence amongst CBNP participants and national rates- 50.3% and 52% respectively (CI overlapping).

Although this was not an identification criteria, MOH is implementing the CBN in 15 out of 22 (68%) of the prioritized, most vulnerable districts as per the 2009 CFSVA and Nutrition Survey, based on 4 specific criteria. The program was considered relevant by all stakeholders because it has reduced cases of

[1] C.I not overlapping

malnutrition and related deaths in all districts visited. However it was acknowledged that CBN activities alone can not solve the problem of malnutrition and needed to be integrated more with other developmental sectors.

CBNP Coverage: most of the districts have a satisfied coverage
Except in Ruhengeri District Hospital where the program is only in 194/430 (45%) villages, most of the other districts have initiated CBN activities in almost all the villages in their catchments areas. However it is only Nyanza, Muhororo and Ruli that implement all the CBNP activities with community situation analysis done, GMP, formation of CBNP associations or cooperatives related to nutrition as well as cooking demonstrations and agriculture activities for income generation. Community participation in CBNP is not also consistent in some of the villages that have CBN, with some districts like Rubavu not implementing decentralised CBNPs with several villages meeting in one central place.

Efficiency and cost effectiveness of CBNP: A Lack of quantitative data and information on costs at the central and the district level means analysis on cost efficiency of CBNS could not be exhaustively and very accurately analysed. Due to poor documentation during planning and implementation, as well as time constraints during this evaluation, it was not possible to collect the costs estimate of these activities. Throughout the years, UNICEF and MOH conducted training at the districts and community levels, bought equipment for growth monitoring, in addition to financing some of the associations during start-ups. WFP also supported food for work in Nyanza that was partly used to set up CBNP associations. Some community members have also given support such as contributing towards the construction of CBN sites for GMP, while some have physically helped during the implementation of activities.

Perceptions of those interviewed and analysis of CBNP on:

a) **Sustainability of interventions:** Although the CBNP strategy aims at having sustainable interventions through promoting community ownership and active participation, this was not achieved in all districts. In some districts like Rubavu, the dependence on external financing to implement CBNP was obvious, with district authorities largely depending, on a one donor, UNICEF. Some districts have managed the financial challenges at the community level especially with the integrating growth monitoring (GMP) into the performance based contract, PBF. Districts that lacked the willingness and motivation for continued participation could be attributed mainly to lack of understanding of the approach, minimum continuous sensitization and lack of political will at the community level.

   Mechanisms of continuity after donor support is stopped are not yet well defined and most district authorities were not informed and prepared for this withdrawal, or suspension of funding, which sometimes happened abruptly. Where initial activities were financed and accompanied with association and cooperative established like in Nyanza, Ruli and Muhororo, the programs have been sustainable. Integration of CBN interventions with Ministry of agricultures' research department, ISAR, in Nyanza, with the financial support from UNICEF was particularly acknowledged for enhancing sustainability of the intervention.

b) **Coherence and coordination:** CBNP was initially implemented without any policy or guidelines. However as the program was implemented, key informants interviewed indicate that the MoH and UNICEF have progressively standardized the Strategy, leading to its integration into the National Nutrition Policy adopted in 2005; in the Multi-sectoral Strategic Plan to eliminate malnutrition developed in 2009; and also a national CBNP protocol to be used by CHWs is being developed to expand on the CBNP component on the national protocols, and will be finalized before the end of 2010. However despite these developments at national level, a lot of effort and coordination is needed at the district, sector and community levels to ensure the effective implementation of these policies at the grass root level.

In the districts visited, FGDs and observations found that most CBN activities focused on GMP, with minimal referrals and proper management of severe malnutrition. Activities are coordinated and supervised by the health centres and the district hospitals, except for Gisagara, where the Gakoma district hospital management was not aware of the CBN activities implemented at the HCs. Coordination within the health sector must be enhanced so that the political will be maximised as it was observed that coordination of nutrition activities has gaps in districts like Musanze, Rubavu Kabaya and Gisagara. Key interviews done especially with local authorities and hospital directors confirmed that only Nyanza, Muhororo and Ruli include nutrition action plans and shared them with the district authorities for integrated actions in the overall district plans. This is however being addressed with the MoH, UNICEF and the nutrition technical group preparing for nationwide workshops, where all districts are to plan and share their activities for malnutrition elimination.

C) Effectiveness: The interventions attend the objectives of the program and contribute to reduce the rate of malnutrition

The elimination of malnutrition requires effective interventions targeted at community groups and vulnerable families. In Nyanza, for example, under-nutrition decreased from 43% in 1997 to 12% in 2009 as per MoH statistics. All the district hospitals visited observed a decreases in malnutrition cases and they attributed it to the CBNP as well as a combination of other factors, including other NGO interventions in food security and related livelihood programs. Although lack of funding to undertake all CBN activities was observed to be a major constraint to CBN effectiveness.

The absence of a systematic monitoring and evaluation system at the national level affects program effectiveness. Only Nyanza and Ruli have good monitoring system with an established database and regularly follow up of community activities. At the national level, MoH, there was no database of the CBNP program, thus monitoring activities and finding information on CBN is a major challenge. Although some districts reported sending CBN reports to the national level, they did not get any feedback. Minimal information was found with the MOH, at the nutrition desk.

Assessing impact and documenting process of CBNP in definite quantitative terms was not possible in most of the districts due to lack of baseline data. In all areas visited however, key informants were confident that the malnutrition cases have decreased considerably and FDGs demonstrated that the mothers were happy with their enhanced knowledge in nutrition that has led to behaviour changes. Malnutrition is lower in areas where the CBNP is implemented, same observation made by the National survey on the nutrition situation, 2009 done by the MoH for the national emergency plan to eliminate malnutrition); 8.3% in districts with CBNP compared to non CBNP districts (9.3%), although the difference is not significant. In addition, the CBNP districts had lower cases of oedema (1.2%) compared to non- CBNP districts (1.6%).

1.0 Introduction

1.1 Background information

It has been widely acknowledged and accepted that Nutrition is a key sector for a country's sustainable development while contributing to achieving the Millennium Development Goals. Adequate food and nutrition are a universal right and are essential for the physical, mental and emotional development of children as well as the quality of life for adults. Malnourished individuals or high malnutrition prevalence at the community level impacts negatively on the well-being of the individual as well as on the community's development. Given the consequences of malnutrition in the face of the development challenges in the world, the 1990 World Summit for Children set a goal of reducing the prevalence of malnutrition by one third by the year 2000. The same goal has been reiterated at other global forums such as the World Health Assembly (1991), the International Conference for Nutrition (1992) and the World Summit for Nutrition (1996). This objective is an integral part of the Millennium Development Goal, which Rwanda has committed itself as a member of the international community. At the regional level, the African Union, NEPAD, COMESA, governments like Rwanda and other intergovernmental organizations, have adopted resolutions and recommendations aimed at fighting malnutrition and poverty. Rwanda has also adopted various sectoral national policies and strategies such as Vision 2020, the PRSP, the National Policy on Health, and the National Policy on Agriculture that can have a real impact on the promotion of better nutrition for its population.

1.2 The Nutrition situation in Rwanda

Following the events of the 1990s, the nutritional situation of the population, in particular that of children under the age of five and of women, has remained a significant concern to date both at the national and community levels. High prevalence of protein-energy malnutrition and micronutrient deficiencies has contributed directly or indirectly to the high infant, child and maternal mortality in the country. The HIV/AIDS pandemic worsened the already deteriorating nutritional situation, characterised by decrease in rainfall, reduction in national food production, household food insecurity, ignorance of good nutrition practices, and the reduction of household purchasing power. Efforts are being made in the agricultural sector, which involves 90% of the national workforce, although the situation is still a major concern.

According to the Rwanda Demographic and Health Survey (RDHS 2005) and the 2009 Rwanda Comprehensive Food Security and Vulnerability Assessment & Nutrition Survey (CSVA&N)[2], rates of malnutrition remain consistently high in Rwanda. Between the two surveys there were no significant difference in stunting (51% to 52%), underweight (15.8% to 19.8%) and wasting (4.6% to 5%). Furthermore, in May 2009 nationwide screening using MUAC found 8.7% of all children under five years of age to be wasted (MUAC<12.5 cm). No significant improvement in maternal nutrition among women of reproductive age between the 2005 RDHS and the 2009 CSVA&N (9.9% to 7%). The 2005 RHDS, found that malnutrition was more pronounced in rural than urban areas. Generally the alarming situation was partly due to recurring food crises and chronic food deficits at the household level.

Other public health and nutrition concerns in Rwanda include:
Iron deficiency Anaemia: According to the Rwanda Interim DHS of 2007/2008[3], Iron deficiency anaemia affects 47.5% of children under five years in Rwanda and is most pronounced (65.5%) in children from six to 23 months of age. In addition, anaemia affects 27% of all women of reproductive age. Anaemia in Rwanda

[2] Government of Rwanda**:** Comprehensive Food Security and Vulnerability Analysis and Nutrition Survey July 2009 (Data collected in February-March 2009)
[3] Ministry of Health, Rwanda National Institute of Statistics and ICF Macro. April 2009. Rwanda Interim Demographic and Health Survey 2007-08

can partly be explained by the high consumption of cereals and tubers diet based that is a poor source of iron or only includes iron with low bioavailability.

Vitamin A deficiency: Vitamin A reduces susceptibility to and the severity of infectious diseases. A child mortality rate higher than 70 per 1000 is considered an indicator of Vitamin A deficiency, and in Rwanda CMR rate is 103 per 1000 (RDHS 2007/2008). The 1996 National Nutrition Survey reported prevalence rates of 25% and 21% for sub-clinical Vitamin A deficiency for infants under 6 months of age and between 6 and 12 months respectively. This may be an indication of inappropriate feeding practices in early childhood. Moreover, according to the RDHS 2000, 7% of pregnant women were reported to suffer from night blindness.

Iodine deficiency disorders (IDD): In 1990, the prevalence of goitre in Rwanda was 49.6% among school children between 10 to 20 years of age. In 1992, Rwanda adopted the Universal Salt Iodization strategy, which could have largely contributed to the reduced goitre prevalence of 25.9% for children between 5 and 19 years as per the 1996 National Nutrition Survey showed.

The nutrition situation required an effective and immediate response system concomitant with concerted long-term actions to improve nutrition and food security. It was against this public health background that MOH, with UNICEF support considered implementing a country wide community based nutrition (CBN) program, amongst other interventions, beginning with a few districts and progressively scaling up and increasing coverage.

1.3 Community based nutrition program

The GOR approach has focused on nutrition interventions in various sectoral development programs, by developing this multi-sectoral nutrition policy as a holistic approach was envisioned given that nutrition is a multi-sectoral domain. The MoH National Multi-sectoral Strategy to Eliminate Malnutrition in Rwanda by MoH has an overall objective to reduce by 30% all forms of malnutrition in Rwanda by 2013. CBN is in line with the 2007 National Nutrition Policy (NNP), and the national strategy to eliminate malnutrition. CBN falls within the following strategies within the national strategy:

1. Strengthen identification and management of under nutrition
2. Strengthen and scale-up community-based nutrition interventions/programmes (CBNP) to prevent and manage malnutrition in children under the age of 5 years and in pregnant and lactating mothers.
3. Multi-sectoral District Plans to Eliminate Malnutrition (DPEMs)
4. Behaviour Change Communications

Community based projects intend to help local residents improve their lifestyles and their health and nutrition practices, especially in the areas of maternal, child and reproductive health. The idea is to work with the people so the changes come from them, rather than being imposed from the top down. The definition for CBNP used in this evaluation was adopted from the National multi- sectoral strategy to eliminate malnutrition in Rwanda- Action plan for implementation 2010 – 2013 published in 2010. CBNP are projects that are operated by communities themselves to enhance the nutrition situation of the vulnerable groups. They have in common nutrition or nutrition related objectives, be it the broad objectives of reducing the prevalence of malnutrition, or more specific objectives related to a single micronutrient or a single nutrition activity such as promotion of breastfeeding. CBNP should be implemented at each village, which ideally should have 4 CHWs: 1 in charge of maternal health care, 1 in charge of the social programs, 2 others in charge of general community health activities.

The first CBN program was implemented in Nyanza in 1998. To date, UNICEF has supported the intervention in 13 districts, although some of the districts are no longer receiving any UNICEF support, partly due to delay in accounting for the financial support given.

1.4 Objectives of CBN program

The specific objectives of CBNP are:

- To reduce and prevent the high rate of malnutrition among under 5 children, pregnant and lactating mothers,
- To conduct and increase the coverage of growth monitoring of the children from 0-5 years at community level,
- To increase the community ownership and participation in the sustainability of the program.
- To provide 'best practices' and 'lessons learnt' for the improvement of nutrition status of the children and their mothers.

2.0 CBN evaluation

2.1 Purpose of the evaluation

This evaluation aims to documenting CBNP process(es) being applied and to assess the perceptions on the program and cost effectiveness in the population by the various communities participating as well as in some that are not involved but are indirectly benefiting from the program. The evaluation has analyzed findings to identify and translate into guidelines key elements that make community-based nutrition programs effective which can be adapted and used to establish and expand such programs or included in the National CBNP Protocol.

2.2 Specific objectives of evaluation:

- To documenting CBNP process(es) being applied
- To assess the perceptions on the program
- To assess the cost effectiveness in the population
- To analyze findings and to make recommendations that would translate into guidelines that make community-based nutrition programs effective

2.3 Evaluation Methodology:

The study was mainly descriptive, employing both qualitative and quantitative methods, with the different sectors and individuals involved directly or indirectly. The CBN process evaluation was also participatory, ensuring constant interaction with the key stakeholders at community level, in the district level and at Head Offices in Kigali. Both primary and secondary information collected have been triangulated and analyzed and presented as the findings of this evaluation, which would translate into guidelines for implementing CBNP which can be adapted and used to establish and expand such programs.

At the national level, CBN approach was reviewed to understand the country context in relation to other nutrition policies and strategies. Several national and international documents were reviewed at this stage. Visits done at the district level aimed at documenting and evaluate CBN processes being applied in the various districts, CBN. The district health hospitals were visited and interviews conducted with Key stakeholders, including the hospital directors and the district authorities, including the mayors. Several villages and communities were also visited in order to see the projects as well as discuss with the individuals implementing the various CBNs through key Informants Interviews and Focus Group Discussions (FDGs). 5 teams, each consisting of 3 trained persons were used to collect the data [4]

[4] See the evaluation protocol for more details on the methodology used.

2.3.1 Sampling:

Overall 7 districts (out of 13 districts) were included in this study, with a total population of 206372 1 The initial 6 districts proposed in the TOR was increased to 7 following discussion and interest to include Gisagara as it seemed to have special challenges and characteristics given that UNICEF funds one hospital (Gakoma) and EIP (a consortium of Concern worldwide, World relief and IRC) funds the other, Kibilizi district hospital.

The sampled districts will include 3 districts in which CBNP has been operational for 4 or more years and 3 where it has been functional for less than 4 years. Apart from 4 districts that have been purposefully selected, and 4 randomly selected districts, the specific CBN sites/ villages selected were randomly selected from a list of all the villages implementing CBN that was availed and confirmed at the district level.

A total of 34 villages/ clusters out of 3602 where CBN is being implemented were visited. Although additional 14 villages within the same districts where CBN is not being implemented were proposed to be visited, only 2 of such were visited as all other villages were said to be CBN villages. However because of this small sample size that wouldn't be representative of the non CBN, these were not analyzed.

Using ENA, a prevalence of 4% GAM rate (DHS 2005), and an estimated total population of 206,373 persons with an estimated 33,239 under five years in the CBNs, 18 children in the CBN program and 10 children not in the CBN program (based on an estimated 10% GAM and 8037 children not in CBN were to be measured from each village to determine the current prevalence of malnutrition in the 34 villages under UNICEF/ MoH districts. In total at 636 CBN children and 34 non CBN (instead of 140) constituted the overall sample size for anthropometric measurements.

2 enumerators per team worked with 1 MoH supervisor. A total of 7 teams for 10 – 12 days were used for this evaluation. ENA software was used to calculate the distribution of clusters amongst 6 districts that were randomly selected for the study. Interviews were also done on the 7th district (Gisagara), one of the purposefully selected districts.

3. Results of Evaluation:

3.1 CBN Process

3.1.1 Process applied in CBN districts is similar

In all of the districts visited, the CBN followed almost a similar process with small differences. The main steps followed for the implementations were generally as follows:

i. Discussions with the nutrition desk and UNICEF on the way of the implementation
ii. Elaboration of the budget for the first activities related to sensitization, orientation for the local authorities and community leaders
iii. Sensitization of local authorities and health staff on the importance of the new approach during meetings
iv. Training of staff responsible for nutrition and health centers by the Hospital and the Nutrition Desk Of The MOH and UNICEF on the objectives, orientations CBNP, the package of activities and organizational aspects of the CBN
v. Identification of villages where the program was to begin
vi. Choice in the villages of community nutrition workers responsible to implement and monitor activities
vii. Training on community based nutrition activities
viii. Provision of basic equipment for the community growth monitoring (Salter scales, records, tables community report cards)
ix. Official launch of CNBP in the area and formalize the program by the authorities

x. Monthly monitoring of activities by the hospital and health center staff

The differences were mainly in the incorporation of integration of Early Child Development component (ECD) which was only done in Muhororo District Hospital catchment area, and the income generation, which was successfully incorporated in Nyanza and Ruli Districts, and lacking in other districts. All details regarding information based on each district are attached in a separate document.
A major element in CBN process and effective implementation is the element of **an outlined timeframe.** It was noted and recommended that based successes in districts like Nyanza, a definite plan of activities over the program duration are essential in timely addressing the lack of integration of a full CBN package, especially during the first two years.

3.1.2 Proposed process model of implementing CBNP

The following process which has factored in time frame was suggested based on experiences of key stakeholders.

Table 1: proposed process of implementing CBNP

Timeframe	**Main activity**
1st Month	• Sensitization of stakeholders at district level, including hospital staffs • Initial multi sectoral overview assessment using a set standard of indicators at the district level
2nd Month	Sensitization of stakeholders at sector and health centres
3rd month	Sensitization of stakeholders at community level: CHWs, local authorities, local stakeholders e.g. any community groups, NGOs at grassroots
4th month	• Acquiring equipment at HCs, • Training of health personnel at health centre, • Training of CHWs at village level • Distribution of equipment and materials at community level
5th month	Initial baseline assessment using a set standard of indicators at the umudugudu level
6th month	Participatory planning and setting up program with the local leaders, CHWs under the health centres leadership, with the district leaders prioritising the areas of need based on the situation analysis.
7th month to 12th month (6 month duration)	• Implementation of GMP, • Initiation of other activities in relation to growth promotion (eg kitchen gardens, Vitamin A supplementation, deworming, home visits, cooking demonstrations, Behaviour Change Communications and other identified prioritised activities) • Close support in monitoring, on the job training, supervision
End of 1st year	
13th month	• Progress Review of the implementation by development partners, MOH and other government ministries as well as discussions on way forward. • Possibility of expansion assessed depending on capacity of the district/ health centres
14th – 16th month	➢ Setting up of cooperatives and other income generating activities (IGA) linked to CBN. ➢ Continued mobilisation of support to finance IGA and other identified needs.
14th to 24th month	➢ Continued implementation, Close support in monitoring, on the job training, supervision

End of 2nd year	Evaluation of activities and discussions on way forward.
3rd year	Progressive expansion and scale up to any other remaining health centres and villages[5].

In Nyanza the initial assessment began before sensitisation, training of HC staff, all took one month each, community meetings for election of CHWS took another month followed by training of CHWs and acquiring of equipment. Then there was official launching, which was a 1 week event, followed by monthly meetings for continuous monitoring. After 6 months of intervention, it took Nyanza 6 months to establish a monitoring system in place. The second year was mainly to reinforce what had been achieved. The population was also organised to committees to analyse the nutrition problem and write proposal of IGAs. They also tried expanding coverage in to more villages. Within the first 3 months of the 2nd year, it was possible to establish the population in associations, in which they proposed activities and were able to raise support after 3 months. Program implementation continued for the rest of the 2nd year. At the begging of 3rd year, there was refresher training, redistribution of new equipment for GMP. It is after the 2nd year of implementation that external donor support can be stopped as the association can raise finances. The other districts have implemented CBN (mainly GMP activities for several years), without advancing to association formation mainly due to challenges, including clack of clarity at the district/ HC level on the CBN activities, budget constraints and human resource at the health facilities.

3.2 Nutrition situation and CBNP coverage

3.2.1 Nutrition status is more significant in the districts with CBNP

CBNs main objective is to reduce and prevent the high rate of malnutrition among under 5 children, pregnant and lactating mothers. According to the Rwanda Demographic and Health Survey (RDHS 2005) and the 2009 Rwanda Comprehensive Food Security and Vulnerability Assessment & Nutrition Survey (CSVA&N)[6], rates of malnutrition remain consistently high in Rwanda. For example between the two surveys there were no significant changes in stunting (52% from 51% respectively), underweight (19.8% to 15.8%) and wasting (5% to 4.6%). Furthermore, in May 2009 nationwide screening using MUAC found 8.7% of all children under five years of age to be suffer from wasting acute malnutrition, (MUAC<12.5 cm). Although MUAC and weight-for-height always give different figures of prevalence for wasting, the recent screening (2009) confirms a persistence of acute malnutrition in the country. No significant improvement in maternal nutrition among women of reproductive age between the 2005 RDHS and the 2009 CSVA&N (9.9% to 7%). The 2005 RHDS, found that malnutrition was more pronounced in rural than urban areas. Generally the alarming situation was partly due to recurring food crises and chronic food deficits at the household level. The situation required an effective and immediate response system concomitant with concerted long-term actions to improve nutrition and food security.

The prevalence of GAM and SAM as found amongst the CBN participants[7] measured during this evaluation was as follows:

Table 1: Prevalence of wasting, underweight and stunting

	WASTING n = 635	**UNDERWEIGHT N= 631**	**STUNTING N= 636**
Prevalence of global malnutrition	(15) 2.4 %	(97) 15.4%	(320) 50.3%

[5] Using Nyanza as an example, the district has progressively increased from 180 sites on 3 health centres in 1998, to 6 HCs in 2000, 10 HCs in 2002, to 15 HCs (303 sites) in 2006 and in all 15 HCs (402 sites/ villages) in 2010.

[6] Government of Rwanda: Comprehensive Food Security and Vulnerability Analysis and Nutrition Survey July 2009 (Data collected in February-March 2009)

[7] Although methodology intended to include and analyse data from non participants, the numbers found during the field visit was significantly low (30, instead of the proposed140), therefore these results have not been analysed as the sample is not representative. The numbers were low as very few non CBN villages were found in the various districts evaluated.

(<-2 z-score and/or oedema)	(0.8 - 3.9 95% C.I.)	(12.2-18.5 C.I.)	(43.6-57.0 C.I.)
Prevalence of moderate malnutrition (<-2 z-score and >=-3 z-score, no oedema)	(6) 0.9 % (0.3 - 1.6 95% C.I.)	(82) 13.0% (10.3-15.7 C.I.)	(201) 31.6% (26.9-36.3 C.I.)
Prevalence of severe malnutrition (<-3 z-score and/or oedema)	(9) 1.4 % (0.1 - 2.7 95% C.I.)	(15) 2.4% (0.8- 3.9 C.I.)	(119) 18.7% (14.5-22.9 C.I.)

Based on these prevalence rates, CBN participants have a significantly better nutritional status than the overall national 2009 CFSVA prevalence rates as they are less wasted (CI not overlapping). However the prevalence of underweight is almost similar in CBN and national prevalence rates, (15.4% and 15.8% respectively, CI over lapping). High levels of stunting reported are however of much concern. There was also no significant difference in stunting prevalence amongst CBNP participants and national rates- 50.3% and 52% respectively (CI overlapping).

5 cases of oedema were identified. The prevalence of oedema was therefore calculated at 0.8 %. The prevalence of global acute malnutrition (GAM) among CBN children under five using WHO 2005 growth standards was 2.4%; 0.9% were moderately malnourished, whereas 1.4 % were severely malnourished. Whereas the GAM rates are poor/ low, just above acceptable levels based on the WHO cut off references,[8], concerns are for the relatively high proportion of severely malnourished children 1.4% (<-3 Z scores). The national 2009 CFSVA survey found 4.6% (4.0- 5.4%) of children to wasted and 1.6% (1.3- 2.1) severely wasted in the whole country, using NCHS/ CDC reference standards. The confidence intervals are overlapping, indicating that the difference may be as a result of chance, and not significant.

As detailed in the table above, boys were also found to be more moderately malnourished (1.4% compared to the girls (0.6%) as well as in severe malnutrition 1.7% and 1.2% respectively. However the confidence intervals overlap and statistical analysis indicate there is no statistical difference between the two groups and observed differences are likely due to chance ($p>0.05$).

Analysis of the nutritional status per various age groups is important in examining the effect of age on nutritional status and is necessary for guiding targeted of interventions.

3.2.2 Nutrition situation expressed by MUAC

MUAC was used to determine the nutritional status of children 6-59 months of age MUAC does not change significantly with children less than 5 year old and therefore there was no need to segment by age. Using the new WHO cut off point of 11.5 cm the prevalence of severe acute malnutrition was 0.2% (1 child) and MAM was 2.8% (18 children). GAM (MUAC<12.5 cm) was 3% (19 children). 11% (70 children) of those sampled were at risk, whereas 86% (547 children) were normal. In comparing these results with the national MUAC screening survey done in 2009 by the Communality Health Workers for the National Emergency Plan to Eliminate Malnutrition in Rwanda) it is evident that CBN participants are significantly better nourished as the results indicated that at least 8.8% (65,210) of the children are malnourished (MUAC<12.5 cm) with 1.6% (14,113) severely malnourished (MUAC<11.0 cm) in 2009[9].

3.2.3 Coverage of CBN Programs: most of the districts have a satisfied coverage

Most of the districts have initiated CBN activities in almost all the villages in their catchments areas. However it must be noted that it is only in Nyanza, Muhororo and Ruli that implement all the CBNP activities with community situation analysis, GMP, formation of CBNP associations or cooperatives related to nutrition as well as cooking demonstrations and agriculture activities for income generation. Participation in activities is not also consistent in some of the villages that have CBN. Out of a total of 79

[8] WHO cut off points for wasting using Z scores (<-2 Z scores in populations: <5% acceptable; 5-9% poor; 10-14% serious; >15% critical).

[9] Although during the planning of the nutrition evaluation provision was made for targeting non CBN participants with CBN participants, the sample size obtained in the former was very small to be of any significant statistical reference.

health centres in the various district catchments areas evaluated in this visit, 76 have CBNs giving 96.2% of the facilities; and out of 2232 villages, 1995 (89.4%) have CBNs. These coverage rates are very good compared with the sphere standards that recommend a minimum of 75% for nutrition programs. The table below summarizes CBNP coverage per catchment's area.

Table 2: CBNP coverage

District/ catchments area	Hospital	Total no of HCs in the district	Health centres with CBN	HCs coverage Percentage	Total no. of villages in district	Villages with CBN	**Village Coverage%**	**Coverage by attendance-2008**
1.Nyanza	Nyanza	15	15	**100**	425	425	**100**	**67%**
2. Huye	Kabutare	12	12	**100**	508	507	**99.8**	**69%**
3. Gisagara	Gakoma	4	4	**100**	189	189	**100**	**-**
4. Gakenke	Ruli	10	10	**100**	201	201	**100**	**83%**
5. Musanze	Ruhengeri	12	9	**75**	430	194	**45.1**	**79%**
6. Rubavu	Gisenyi	9	9	**100**	60	60	**100**	**64%**
7. Ngororero[10]	Kabaya & Muhororo	15	14	**100**	419	419	**100**	**64%**
TOTAL		**79**	**76**	**96.2**	**2232**	**1995**	**89.4**	**71.0**

3.3 Perceptions on CBNP

3.3.1 A success story from Busoro health centre

Interviewing Mukahigiro Godelive, the president of "Abitangiye Uburezi" association, located in Busoro, Nyanza district, leaves one convinced that CBN programs are effective, and have positive impact on the community members who participate in them. As the overall leader of her association, she emphasizes that all presidents of the organizations joined when they had malnourished, underweight children. She was amongst the first participants of the program, admitted in the CBN in 1998 because her child was moderately malnourished. During the sessions, they participated in growth monitoring activities, health and nutrition education, cooking demonstrations, kitchen garden demonstrations and association activities. The association is involved in agriculture related income generating activities where they domesticate animals like chicken, cows and rabbits in addition to growing their own vegetables. Because of the way her capacity has been built throughout the years, Mukahigiro is confident that as at now she can afford to eat anything she desires as she can sell off some of her produce in exchange for what she doesn't farm.

She admits that some people leave the association within the first 2 years after their malnourished children recover. However as these abandonees are now seeing the long term benefits of the association, they are returning in large numbers to be considered for membership. "All my association members are very healthy now and they have respect in the community. They participate in the growth monitoring program by educating new members. Out of every 100 households in my catchments area, only 2, normally from newly migrated households have malnourished children", says the associations' president.

Her roles as the president of the association are to working closely with the CHW in follow up of CBN activities, including looking for malnourished children, organizing meetings for the association members as

10 Ngororero district has a 2 district hospitals

well as leading the committee of 5 people[11] who direct the association. Her parting message to other women and men is that they should join associations, and men should be happy when their women do not constantly beg them for money as the association begins to increase their capacity to take care of their families.

3.3.2 Perceptions of CBNP from different stakeholders

Perceptions of CBNP from those interviewed have been presented in the table below.

Table 3: Positive and negative perceptions

Category of interviewees	Positive perceptions	Negative Perceptions
Perceptions of the participants	- Most of the population was happy with the program and the parents understood the importance of the attendance: the program allows to monitor the health status of children - The CBNP is close to the community, reducing the travel time to the clinic and this has encouraged more people to be concerned about health and nutrition issues - CBNP is an opportunity for great family participation, with men being more interested in income generating possibilities. **Perceptions of participants on behavior change attributed to CBNP** -Mothers are able to identify more nutritious foods and prepare a balanced meal for children. -Some mothers have seen the importance of exclusive breastfeeding and practiced. The child is not sick all the time. -The messages received on family planning have helped some mothers to reduce frequent pregnancies -Before the CBN, it was difficult to go to the health center for growth monitoring. Since that activity is done at the community level, it is easy to participate. -Cooking demonstrations led some mothers to learn how to make enriched porridge for children. -The mothers said they have improved food hygiene, personal hygiene to	- Prior to the feeding at health centers mothers were given food aid, unlike currently where there in so food aid at the community level and mothers must bring their own food for community kitchens, and yet the food is very difficult to find . - Some mothers refuse to come in cooking demonstrations because they have no food to bring -In some districts like Gakenke, mothers were not happy with the contribution of 50 FRW requested each month while they are the same people who bring food for the cooking demonstrations. - The activities of poverty reduction are not yet implemented yet poverty persists even in families

[11] The committee consists of the president, secretary, accountant and a subcommittee of 3 other people who watch and control the main committee.

	prevent children against diarrhea. -Because of CBN messages, the mothers have better understood the importance of giving the VIT A to children.	
Perceptions of non-participants*	None. The program is not yet implemented in their area	-Limited understanding amongst stakeholders on CBN activities. -CBN activities in urban areas must be carefully designed to attract participation of the targeted people.
Perceptions of the local authorities, District / Hospital Authorities and Health Centers staff	- The program was relevant because it came at a time when malnutrition was perceived to be a problem in the region even in agricultural potential areas. - The program has helped the staff of health facilities to delegate responsibilities of growth monitoring to the community itself; - The program has trained and developed capacities for community health workers to detect and monitor various forms of malnutrition and transmit messages on nutrition. - CBNP led to timely identification of malnutrition and prevention of deterioration. -There is opportunity for integration of current kitchen gardens with CBN.	- There was limited understanding on the different CBN activities - Other health related topics like IMCI has not been done for most of the CHWs interviewed. -Although there is a lot of dependency on external financing, community growth monitoring can be done with minimum or no external support. - Lack of sufficient weighing equipment (scales, recording books, MUAC tapes) because of decentralized CBNP which initially started at cells. -Lack of cooking equipment limited the successful implementation of Cooking demonstrations as well as lack of motivation of CHWs to regularly monitor these kitchens - Lack of educational visual aids for communicating nutrition messages -The long procedures to get finances or for justification of expenditure from UNICEF fund and other grant funds are heavy and block the continuity of certain activities. Lack of therapeutic and supplementary intervention for severely malnourished without complications and moderately malnutrition at CBN sometimes discourages attendance and referrals to health centers.

* Non participants who did not understand the program were mainly from Musanze, in the area where the CBNP is not yet implemented.

3.3.3 Cost of CBNPs

Small proportion of nutrition project evaluations include any cost data at all yet for some impact achieved in small projects with a level or quality of inputs that would be difficult to sustain in larger or longer term projects depending on their cost-effectiveness i.e. the cost per unit or percentage change as an impact indicator, is essential if projects are to be used as a basis for comparison and as models for subsequent programming. Several interventions and programs initiated both in Rwanda and other countries that can

directly or indirectly prevent or treat under-nutrition and are highly cost effective if well planned, efficiently and effectively implemented, should be considered when scaling up interventions are been considered.
UNICEF/ MOH estimated costs of trainings for CBN per village[12] at 33.5 USD. The costs used only captured trainings for CHWs, health workers and local authorities' sensitization. From this information, it can be concluded that GMP is the cheapest CBN activity, followed by kitchen gardens, MUAC screening. However it will be important that the impacts of these activities are taken in to consideration before concluding that they are the most efficient CBN activities.

Although cooking demonstrations may be considered cheap because of use of locally available foods, expenses are mainly on equipment, supervision, and transport, and lack of support in this activity leads to it not being sustainable.
Based on the perceptions above, the cost analysis and other discussions made during the evaluation, the following observations were also made:

- Connectedness and sustainability of CBN interventions

The interventions attend the objectives of the program and contribute to reduce the rate of malnutrition:

The CBNP strategy aims at having sustainable interventions characterised with community ownership and active participation. However the concept can not be said to have been implemented in a very sustainable approach in most of the districts, although this was achieved by some districts. In some districts like Rubavu, the dependence on external financing to conduct community nutrition interventions was obvious, with district authorities largely depending, on a one donor (UNICEF), for lack of sufficient funding mechanisms for community interventions, partly because of the lack of multisectoral orientation on CBN. The need for financial support in the CBNP was always expressed, for implementation of all the proposed CBN activities, with CBN activities and goals not being classified as short-term, or of emergency nature as they carried out in a context that takes longer-term and interconnected problems into account.

Moreover, in some districts, the willingness and zeal for participation was lacking at different levels (some at the district level and some at the grassroots level). This could be attributed mainly lack of more orientation and understanding of the approach. Mechanisms of continuity after UNICEF support is stopped not yet well defined and the district authorities have not yet been prepared for this withdrawal, which sometimes happens abruptly, without the authorities being informed. Where initial actions were financed and accompanied with association and cooperative development, like in Nyanza, Ruli and Muhororo the programs have been sustainable although not without that could be addressed with minimum support or/ and technical input. Integration of CBN interventions with Ministry of agricultures' research department, ISAR, in Nyanza, with the financial support from UNICEF was particularly acknowledged for having led to sustainability of the intervention in Nyanza. The ministry has further decentralized some of its activities at district, sector and cell level and is collaborating through the Joint Actions Forum at district level to implement all activities proposed in the strategic plan. Currently, (October 2010), the ministry of agriculture in collaboration with WFP and MOH[13] are conducting a crops assessment which will hopefully identify household with malnutrition and to prioritize those families in the distribution of cows. This is an example of the inclusion of nutrition indicators in they strategy.

[12] Figures used were from 2009 2nd quarter CBN tabulation costs- Amounts taken were the expenditure for Muhororo district, divided by the number of villages implementing in the district, which is 218.
[13] Although MOH was informed during the planning, the nutrition desk was not fully involved in this exercise, raising the concerns on how integration and collaboration is being done by the different stakeholders.

To enhance sustainability, particular attention to institutional factors, specifically the existence of strong partnerships between the different stakeholders and sectors and the extent to which national or local capacity is supported and developed must be scaled up.

➢ Coherence and coordination

This evaluation did not concentrate on assessing the extent, to which policies of different actors were complementary or contradictory although it was noted that different sectors are currently working on nutrition being streamlined in most of the government ministries and departments at national level. Although it should be highlighted that this integrations was not yet felt at the community level, it was beyond the scope of this evaluation to look at the policies from other departments/ ministries like the ministry of agriculture. Participation in nutrition activities is mainly the responsibility of MoH.

Since 1997, the CBNP was implemented without any national policy, protocol or document of guidance that could provide standard guidance. However as the program was implemented, the Ministry of Health and UNICEF have progressively tried to standardize the Community Strategy, leading to its integration into the National Nutrition Policy adopted in 2005; in the Multi-sectoral Strategic Plan to eliminate malnutrition developed in 2009. Also a national protocol to be used is being developed and will be finalized before the end of 2010. However despite these developments at national levels, a lot of effort and coordination is needed at the district, sector and community levels to ensure the coherence of these policies up to the grass root level.

In the districts visited, most CBN activities follow the indicators of the Ministry of Health related to nutrition mainly focusing on growth monitoring, some referrals of severe malnutrition although not always the case, trainings and the use of community health workers only recognized by the Ministry of Health to conduct community actions related to health and nutrition. Activities are being coordinated and supervised by the health centres and the district hospitals, except for Gisagara where the district hospital management is not aware of the CBN activities although they are implemented by health centres. Coordination within the health sector must be enhanced so that the political will be maximised and impact of these intervention felt by the Community due to a coherent, well coordinated approach.

It was observed that coordination of nutrition activities has gaps in districts like Musanze, Rubavu Kabaya, Gisagara Huye. A few districts like Nyanza, Ngororero and Gakenke include nutrition action plans and share them with the district authorities for integrated actions in the overall district plans. This is however being addressed with the MoH and UNICEF currently preparing for an upcoming nutrition summit in November, where districts are supposed to share their district plans, with nutrition incorporated in the plans.

Coordination mechanisms of development interventions had been earlier established by local government, particularly with the establishment of the districts of the Joint Action Fora (JAF). However, the operational capability of these Fora to coordinate, guide donors and propose actions to address nutritional gaps at the district level is still low.

Lack of linkage and coordination was also noted between community development interventions, other partners in food security in the same geographical area like GIRINKA program (one family, one cow) with CBN activities. Although malnutrition could be caused by several underlying causes including disease and food insecurity, targeting poorest families with malnutrition caused by limited access to food should be considered as an indicator to distribute those cows. Although there are discussions at national level to implement this, the nutrition office/ desk should work at implementation of this

➢ Effectiveness of CBNP

The elimination of malnutrition requires effective interventions targeted at community groups and vulnerable families. In Nyanza for example, indicators can affirm: malnutrition fell from **43% in 1997 to 12%** in 2009. Different approaches of CBN designs were observed.

In some districts like in Gisenyi, different villages (up to 4 in Busasamana health centre) gather together at a central site, mostly health centres for CBN activities, which was purely growth monitoring and health education. Whereas this was approached was adopted because of fewer equipment (weighing scales and height board) it was noted to be less effective as attendance and participation is characterised by less commitment, mainly due to the long distances that participants have to cover to access the CBNP site.

In Nyanza and Muhororo (where the interventions have been implemented over longest period, CBN sites are more decentralised at village (umudugudu) level. In Nyanza it was noted that on average participants take less than one hour to assess CBNP site. This has enhanced participation as a lot of time is not wasted in walking to the site. To enhance effectiveness, a CBN session should then take at most 1 ½ hrs to give caretakers time to do their other responsibilities.

In several sites visited across the districts, growth monitoring is the main activity done. There is less emphasis on other preventive CBN activities like health education, cooking demonstrations, kitchen gardens are lacking. Lack of funding to undertake these activities were expressed as the major constraint. Some activities are implemented without definite action plans, and in most cases there was lack of intentional defined multi-sectoral planned approaches, making it difficult to assess the achievements and effectiveness of interventions, comparing them to what was planned.

Although in all district hospitals, the malnutrition cases were generally noted to have decreased from year to year indicating effectives of CBNP interventions, it must be noted that reduction in these cases could be attributed to a number of other factors, including other NGO interventions.
Except in Nyanza and Ruli, all other districts lacked a good monitoring system and a regular follow up of activities, with the existence of a database. At central level, there was no database of the CBNP program in place and monitor activities and finding information on CBN was a major challenge. Although some districts reported sending CBN reports to the national level, there was no follow up. Some information was found with the donors and some at the department of nutrition. The absence of a systematic monitoring / evaluation system at the national level has affected program effectiveness.

4. General SWOT Analysis for CBNPs Across all Districts evaluated

Table 4: SWOT ANALYSIS

Strength	**Weaknesses**
- Integrating vaccination in to CBN activities led to high measles immunisation coverage amongst beneficiaries: 94.6% of those measured in this evaluation had measles imunisation. - High attendance in GMP: 82.5% of those measured during this evaluation were actively involved in GMP. - Interest of partners like UNICEF on the CBN approach. - Inclusion and Involvement of dynamic stakeholders at grass root level like community leaders, CHWs, the general population in most districts.	- Even though most hospital staffs knew a lot more of CBN approaches and activities, they did not implement some aspects like the income generating - High dependence on external funding due to lack of ideas on how the CBNs and ECDs can be linked to associations and other IGA to make the activities sustainable. -Lack of a harmonized contribution system aimed at sustaining CBNs in some villages with contribution ranging between 0 to 50 RWF - Long duration between district requesting for funds, and UNICEF availing the funds, e.g. in Ruli

- Good working relations of the Hospital authorities and good collaboration between Hospital and district authorities	finances requested in December 09, no response given by September 2010. - Although UNICEF, USAID other INGOs are the main donors interested in CBN related activities there is insufficient financial support from donors as CBN implementers highlighted on the gaps and challenges of support. - A centralised budget (funds), where those implementing CBN have no input on CBNP budget, as budget is not decentralized and discussed at district or hospital level slows down timely release and accessing - Lack of health education materials in most of the health centres - Very few CBN activities are implemented, most concentrate on growth monitoring which is not sufficient to eradicate malnutrition. - After GMP, caretakers are usually not interested and committed to continue in the CBN program. - Limited understanding amongst stakeholders on the importance of CBN activities. - Due to lack of sufficient materials for Growth monitoring, cooking material, initial financing the income generating activities, no local of GM activities, efficiency and effectiveness of these programs have been limited in some districts. - Based on key interviews with stakeholders, lack of well laid out roles and responsibilities of stakeholders like local government, ministry of education and MOH leads to poor coordination and collaboration with all community development partners leads to -Stakeholders like education, health, local government, do not participate in planning together cross cutting activities. - Lack of therapeutic and supplementary foods for management of severely and moderate malnourished children respectively in most health centres visited in this evaluation limits referral to health facilities.
Opportunity	**Threats**
- Political will and commitment to fighting malnutrition in Rwanda creates a positive environment for CBN implementation. - Availability of community development strategy, a National Nutrition Policy and other nutrition guidelines that recognizes nutrition as important to development. - Associations of nutritionists in Rwanda can advocate for CBN to increase sensitisation on CBN activities.	- Some health centres not working closely with local authorities and the lower community structures. - The financial support of the nutrition sector is still low; - The unstable geo-climatic environment with pockets of seasonal food insecurity in some parts of the country leading to high malnutrition, - Impact of HIV/AIDS and the high prevalence of infectious and parasitic diseases, which adversely affect the nutritional well-being of the population.

- The health strategy based on decentralized management allowing the integration of essential nutrition related activities at district and community levels; - High number of existing personnel (Community Health Workers in each village) for the implementation of CBN activities. - The interest of many institutions to invest in nutrition activities like USAID, global fund, national university of Rwanda. - Integration with the national health insurance scheme, *mutuelles,* so that malnourished children with medical complications receive appropriate care. - The availability of agricultural workers at sector and cell level and arable Land for promoting kitchen gardens and agricultural activities. - The CBN is integrating others community health activities easily such as immunization, VIT A supplementation, IMCI.	-The policy change of CHWs and local authorities: CHWs and local authorities are moving frequently and it means that the new elected CHWs and authorities have not necessary a same understanding on the program.

5. Challenges, Gaps and key lessons learnt

5.1 Challenges

Several challenges were highlighted, including:

1. Due to lack of national strategy and a national protocol for implementation from the onset in 1998, the CBN program has been mostly been seen and developed as a pilot intervention, therefore lack of standard, clear implementation criteria, resulting various and incomplete CBN activities by different agencies and districts, including within the UNICEF funded districts.
2. Misunderstanding of what is the full package of CBN activities. In many places the program is limited only to the growth monitoring of children, without analysis and proposed solutions at community level.
3. Inadequate monitoring, supervision and support from both the national MOH/ Nutrition office and UNICEF. Statistics collected from the GMP activities for example, could be collected and analysed on a quarterly basis, with feedback and discussions held with district authorities on the CBN implementation process.
4. FGD and key interviews showed that insufficient funding affected support of some of the proposed community based solutions as well as funding stopping at inappropriate timing, before the districts develop the capacity to manage the CBN. This was mentioned by all the districts visited, indicating also that they don't receive response on requests of fund given to UNICEF.
5. Although the causes of malnutrition are widely understood to be multi-sectoral, the program does not get the desired support and integration from other relevant sectors of education, agriculture, gender and family, commerce, food industry and other community development approaches in general, as well as with other key stakeholders including the local authorities. Although the GOR ordered the integration of nutrition activities at district levels for enhanced community development planning, there is lack of following up and monitoring structures.
6. Impact could not be assessed in definite prevalence rates as most of the districts due to lack of baseline quantitative data and information before CBNP was initiated in the respective districts.

7. Sustainability: Although many CBNs have been started in many areas, it was suggested that few districts may actually be actively implementing CBN, especially after the key implementing partners (NGOs included) leave a location, especially if CBN was not linked to an income generating activity.

5.2 GAPS

1. Lack of a well-defined monitoring and reporting system at the MOH National and district offices: standardised reporting formats and database.
2. Inadequate multi-sectoral coordination of nutrition related activities at the district levels.
3. Although there is a large network of CHWs, they lack sufficient, and continuous trainings to enable them perform their work effectively. Most of the CHWs interviewed in this evaluation have received only about 2-3 days short trainings on screening.
4. Lack of qualified nutrition professionals at all levels affect effective implementation and follow up of nutrition activities. For example, in several health centers, nutritional activities are currently carried out by social workers with no training in nutrition.
5. Furthermore, the follow up of nutrition related activities is not based on appropriate indicators in the National Health Information System (HIS). These indicators will need to be defined and share with the NHIS team for incorporation.
6. The complex causes of malnutrition called for a multi-sectoral approach and action at different levels to effectively address under-nutrition in the long term. Although it has been acknowledged and accepted that there is need for developing of decentralized, Multi-sectoral, well-coordinated District Plans to Eliminate Malnutrition (DPEM), with integration of nutrition and non nutrition-health sectors, clear guidelines to assist Multi-sectoral District teams creating DPEM that would adapt major intervention programmes to individual district circumstances and resources and then used to guide the activities of the EPEM and related programmes at district, sector, cell and villages (imidugudu) levels are yet to be written and implemented.
7. Lack of well laid out budget with a lot of emphasis on accountability and capacity building will help monitor and assess the CBN intervention.

5.3 Key lessons learnt

5.3 1. From health facility Staffs at the district hospitals and health centres

a. The lack of a comprehensive action plan detailing all necessary requirements and showing actual funding sources does not meet all needs encountered in the implementation of the program. Lack of adequate funding is a handicap for the continuity of the program. Financing CBN should be a prerequisite before starting activities.
b. Funding from the partner is either inadequate or interrupted without the recipient is informed in time. Activities are then disrupted. The partner must highlight or inform the limits of its funding for the program that the districts seek solutions to take time.
c. To eradicate malnutrition, multi-sectoral interventions that go beyond the health sector are necessary.
d. Lack of multi-sectoral coordination at the district level does not allow for interventions in line with actual requirements at the local level or to better target intervention needs related to nutrition
e. The mobilization and commitment of local authorities is a critical success factor for CBN. Otherwise the program has failed.

5.3.2. From Community health workers / community leaders

a. The mobilization of all actors at the local level can eradicate the problem of malnutrition. Food aid is still a need for the poorest families. It is difficult to teach someone how to eat well when he cannot afford to do so. Community solidarity may be a solution.
b. It is difficult to continue working without some benefit as motivation.

5.2.3. From Beneficiaries

a. Before the participation in the program some mothers confused malnutrition with poison. Now they know how to identify children with malnutrition and to make medical treatment at time. Mothers have understood that malnutrition can be treated with local foods. Before participation in the CBN some mothers thought that food aid alone could address the malnutrition
b. CBN has been an opportunity for mothers to be in association.
c. It is difficult to find enough nutritious food for cooking demonstrations. Thus, the practice is not easy.
d. CBN allowed mothers to know on time that children are at risk of disease.

6. INTERGRATING ECD PROGRAM: SUCESFUL CASE FROM MUHORORO

6.1 Back ground and context of ECD in Rwanda:

High prevalence of HIV AIDs and related deaths: 15.000 children from 0-14 years are killed by AIDS compared to 44 000 adults (ONUSIDA, 2002). At least 36% of Rwandan households have either formally or informally fostered children. This is the highest percentage in the world as approximately one out of every four or five of all Rwandan children (i.e., 1.2M within a total population of 4M children) are orphans and vulnerable children who have lost one or two parents. About 50 % are aged between 0 and 9 years. In 2001, 30% of the total numbers of orphans were so due to HIV/AIDS (2001/2 UNAIDS). The other main cause of the big number of orphans is the war and genocide of 1994. There are also many other causes of a child's vulnerability, such as deprivation of liberty, early marriage, life in the streets, refugee condition, etc.

These children face very difficult circumstances: lack of food, marginalization and stigmatization, lack of decent housing and health services, lack of security and protection, Lack of adult parental care and provision of basic needs to child-headed households, problems of access to education or early learning, lack of confidence within communities, poverty of communities and foster families, sexual violence, psychosocial problems in OVCs due to lack of proper care and social guidance

Moreover there are some institutional constraints such as limited number of systematic interventions and programs addressing comprehensively the ECD problem, limited technical skills in counseling, medical care and home care of children affected by HIV/AIDS, limited financial and technical resources to address ECD & HIV/AIDS problem, difficulties in laboratory diagnosis of HIV/AIDS in young children (infants), requirement for committed adult care giver for infected children on ARV.

It was against this background that ECD was identified as a cross cutting strategy for the UNICEF Rwanda country programme and it involves all the programme components (survival, growth, development, Education, Protection and HIV/AIDS). UNICEF recognizes its key role in capacity building of civil society organizations to support the needs of orphans and young children, thus UNICEF supported the ECD pilot approach in MUHORORO since 2003, integrating it with CBN program, although this was not yet a national strategy. The progress and experience of MUHORORO has attracted much attention from various partners of the government. Without a standardized strategy however, other approaches including nurseries, preschool education, were implemented in different other places in the country, confusing those activities with the early childhood approach. The ECD approach has been now recognized and recommended to become a national harmonized strategy. A national policy was developed in 2008-2009 although it is still a draft, even as some modules are yet to be completed and standardized.

Activities realized under ECD include sensitization of community, trainings, on ECD and pre-school children management, and distribution of ECD kits for preschool kit is well indicated for Education component.

6.2 ECD situation in Muhororo

Community based ECD started in the district in 2004 with the aim to encourage children attending school at the earliest age (2- 6 years old), while their health and nutrition are closely monitored. 6 pilot sites were initially opened and integrated with health and nutrition. However because of decentralization, currently only 4[14] of these are in Muhoro. Latter on more 264 ECD sites were opened in the new administration although these were not integrated with the health and nutrition component, as emphasis was laid on the effective kick off on the education element. Unfortunately, activities in most of these 264 ECD sites stopped mainly because of lack of payment for the trained volunteer teachers. On average, 1 ECD is made of about 80- 100 households.

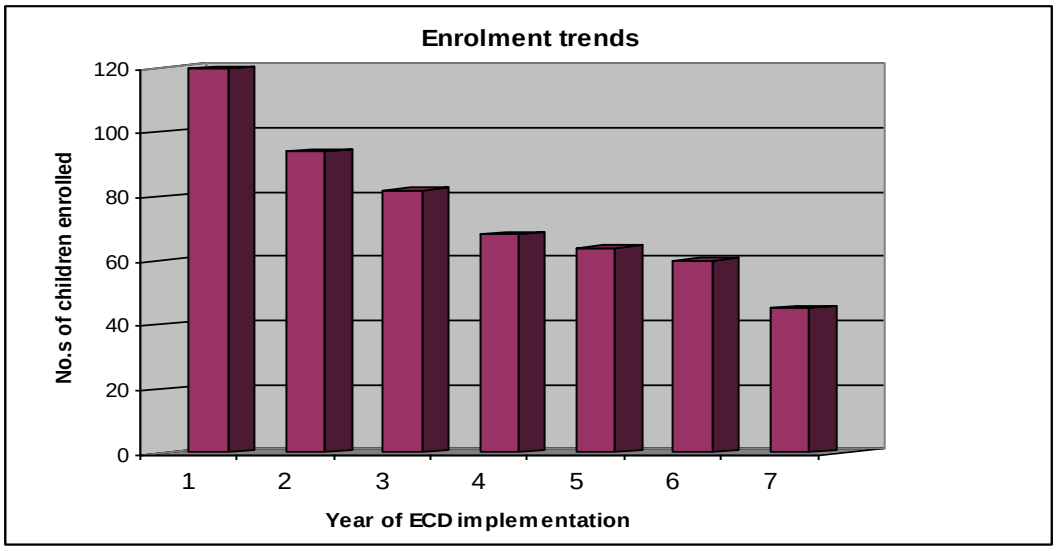
[14] These 4 ECDs are Nyamisa, Ntaganzwa, Iterero and Ntobwe

In Ntobwe, people were mobilized at cell level and each parent expected to pay 200 RF per month as contribution towards food (tea/ *igikowo* and lunch break) for the children. At the time of the visit the food had stopped mainly because of lack of food availability locally, as well as inconstant payments by the parents. Other needs necessary for the ECD to operate include books, pens, black boards and desks: these have largely been given as gift donations. Rehabilitation of the classes is also an annual, raising the operational costs to an average 2 million RWF annually. It has been difficult to raise these items from food supplied by kitchen gardens thus affecting effective learning environment. Moreover in Muhoro, unlike in Nyanza, UNICEF did not support income generating activities and associations linked to CBN and ECD that would have made ECD more sustainable.

For effectiveness, the children are grouped in 2 classes: 2- 4 year olds and the 5- 6 years old. Each week, the students have 11 lessons during which they learn through reading, singing and playing from 8.45 am to 11.45 am. The volunteer teacher was a community leader chosen by the mothers to become the children's educator based on her interest and commitment to child development. Although she is sometimes paid 15,000 RWF per month by UNICEF, the payments are inconsistent and irregular. She also received several short trainings between 2004- 2007 facilitated by UNICEF office, covering topics of nutrition, protection and education. There is still need for continued short refresher trainings, which also serve as key motivation for these community workers.

ECD management and effectiveness was also affected by the frequent change in local administration officers as most of the time the replaced officials lack knowledge on ECDs and it takes time before they become familiar and confident of the project. Due to a meeting held with UNICEF in the district in 2008, ECD has been considered in the district plans. In addition, although the ECD project was started with the MOH, Ministry of education should take the lead role in this program.

Figure 1: ECD School Enrolment trend in Ntobwe, Muhororo



The numbers of children enrollment per year has been decreasing by more than half in a period of 7 years. This was partly because initially in 2004 in the first year of implementation when 120 children enrolled, the ECD was done at a cell made of 8 villages. Currently these ECDs are implemented at each village and hence the lowest number of 45 in 2010, the 7th year of ECD implementation. Several children also graduate to grade 1 for further schooling hence the decrease in numbers. During this evaluation 39 children were in attendance.

The caretakers (usually mothers), are also targeted as they attend a 1 ½ hr. session in the afternoon once every week. Among the topics they discuss are IMCI, health insurance, vaccinations etc. Although these

health education sessions were well appreciated as having created positive impact and enlightens amongst the caretakers, these sessions are also challenged by lack of training materials. Caretakers also appreciated the fact that bringing their children to the ECD centre frees them to concentrate on other responsibilities, while their children interact with their teacher and age mates and be developed mentally. Although no formal survey has been done on the impact of this particular ECD, the teacher acknowledged that children who passed through the ECD centre seemed to perform better when they enrolled in the primary schools.

Discussions held with different government structures from the Ministry of Health, the Ministry of Education, the Ministry of Gender, highlighted that the ECD should be a community based approach including the CBN activities, preschool education and other community health activities. The target group should be 3- 6 years. Each District should start with 1 pilot EDC as a model in the district before scaling up under leadership and coordination of the Ministry of education at the national and district level. Integration and collaboration with the Ministry of Health is advantageous as the Ministry of Education has no structures at village level, only up to the sector level. The Joint Action Forum (JAF) in the district has to discuss with all partners in the district and to decide where to create the ECD pilot site, after assessing the needs and opportunities. Currently a steering committee headed by the Ministry of education is in place and is heading the implementation of this approach.

7.0 Conclusion:

In conclusion, under nutrition remains a significant public health problem in Rwanda. The community based nutrition program initiated by the Ministry of Health since 1998 with the support of UNICEF is a great experience which contributed to reduce malnutrition at community level. In areas where the assessment was made, malnutrition rates are below national rates and beneficiaries in the program improved good practices in nutrition. Community participation and engagement of local authorities in activities are some aspects that have lead some achievements in the areas where the program had great results.

Perceptions obtained during the evaluation and the analysis of data collected illustrate that the CBN program is relevant, valuable by the communities, realistic and feasible in time, effective, efficient and sustainable. Key informants interviewed indicate that the MoH and UNICEF have progressively standardized CBNP, leading to its integration into the National strategies. Despite these developments at national level, a lot of effort and coordination is needed at the district, sector and community levels to ensure the effective implementation of these strategies. The monitoring system and coordination are to be strengthened.

However, the program requires to satisfy several conditions before and during the implementation in particular by defining the plan of actions, sources of funding, roles and responsibilities, establishment of a monitoring / evaluation system and reinforce coordination mechanisms at all levels (central, district and community). Moreover, mobilization mechanisms of local resources to finance these interventions are not defined and many areas have difficult to implement the full package of activities as proposed in the national protocol of CBNP. The inclusion of partnerships to finance community-based interventions is an aspect that should be incorporated into the program and the integration of actions against malnutrition throughout the community development process as a whole.

In all districts, the process followed to implement the program is the same as proposed by the Ministry of Health and UNICEF. The strategy follows the approach of "3A" (assessment, analysis and action) which, besides offering the growth monitoring at the community level, also proposes the development of community capacity to analyze the causes of malnutrition and propose specific actions adapted to each environment. However, to continue different steps of the implementation depends on the period of availability of funds and the implication of technical health staff and existing of good coordination mechanisms as improving nutrition has multisectoral implication.

The coordination mechanisms to improve nutrition, once strengthened at the district level, will allow better use of resources available. CBNP has therefore shown that with some improvement on its implementation, it can make significant and sustainable contribution in addressing the challenges of malnutrition in Rwanda.

8.0 Recommendations:

In tackling and scaling up programs addressing malnutrition, policy and program solutions must continue addressing both the immediate and the underlying causes. The following actions are recommended:

Policy recommendations:

1. ***Target nutrition interventions to the window of opportunity:*** The Rwanda government, NGOs and development agencies should concentrate and scale up targeted nutrition interventions for women and children in the window of opportunity, -9- 24 month, designing CBN interventions for both women of child bearing age as much as children under 2 years of age using evidence-based and locally appropriate approaches, including nutrition screening of pregnant and lactating mothers.

2. ***Scaling up*** CBN interventions requires addressing the substantial challenges related to resources, human capacity, as well improving accountability and enhancing monitoring of both stakeholders implementing and donors supporting the program.

3. ***Tackle the underlying conditions that cause malnutrition:*** To achieve sustainable improvements in child nutrition, decision makers, through an effective multi- sectoral planning and response with strong co-ordination and leadership at national, district and community levels, must tackle the underlying causes of under nutrition: poverty and food insecurity, insufficient care for women and children, and limited access to healthcare and a healthy environment. The proposed DPEM nutrition committees at the community level must be empowered to be able to interlink, discuss and come up with relevant CBNP activities.

4. ***Enhanced integration*** of nutrition dimensions into the development agenda at all levels. For instance it's necessary that the Joint Actions Forum dynamic be properly oriented on nutrition interventions and food security at district level for good coordination in addition to reinforcing the national nutrition committee to eliminate malnutrition and to propose specific recommendations for each department. Collaborations with organizations that fund and have experience in implementing income generating activities as well as cooperatives must not be ignored.

5. ***Development and implementation of specific community based activities and country led/ owned*** strategies for each of the 8 strategies in the MoH Multi -sectoral approach strategies through the joint planning teams will enhance CBN activities

6. ***Maximise the political will in investing in nutrition programs:*** Although nutrition is way up the national development agenda in Rwanda, the commitment to increased emphasis on nutrition will need to be backed by additional resources, in addition to joint action plans and cooperation will be required by all stakeholders—governments, civil society, the private sector, academia, and research institutions—with each stakeholder having clear roles and responsibilities. It is important to find ways to keep the high nutrition attention in the political agenda and central to the initiatives outlined even at the district and community levels.

7. UNICEF/ MOH and other stakeholders should analyse and incorporate other CBNP activities that have been seen to be effective in some of the other districts implemented by other stakeholders, to ensure that innovative and best practices learnt are shared..

8. MoH should adopt the new 2006 WHO child growth standards for project implementation for the 6- 59 months in all the districts, with any new sites being opened henceforth using these standards instead of the 1977 NCHS reference at the health facilities and the old MUAC tapes replaced reflecting the new cut off points to avoid underestimating prevalence of malnutrition.

Programming Recommendations

1. Standardizing data monitoring and reporting formats across the districts and at community and health centres will enhance program effectiveness.

2. Although promotion of preventive activities is important, more training of CHWs before integration of CMAM as a CBN activity to ensure identified severely malnourished children are appropriately referred and treated at the community and health centres is important given that some CHWs are implementing IMCI which is a community based activity involving prevention and treating 3 common illnesses- malaria, pneumonia and diarrhoea among other responsibilities.

3. Integration of other existing nutrition activities like the P D Hearth, community kitchens and CBN linked associations when managing malnutrition through CBNP.

4. The director of health office at the district level could be strengthened and capacity built of nutrition officers at the sector level to coordinate the various CBNs at district, the health centres and umudugudu. Currently most CBN and other nutrition activities are overseen by health centre staffs with a background in sociology or community development certificate holders. In the absence of a qualified nutritionist at the districts, the district health coordinators roles could be expanded beyond the hospitalized inpatient cases, to related health and nutrition issues affecting the district at large.

5. Streamlining of roles and responsibilities, including information management at the district and national level will help address the information gaps currently characterising the MoH nutrition desk office and the district offices. A monitoring and evaluation personnel at the nutrition desk is recommended.

6. Continuously assessing and addressing the capacity of CHWs for CBN development will enhance and improve the quality of programming. Indicators for CBNP should be included in the annual review of performance of CBN during annual evaluation done to include performance of CHWs.

7. The existing network of CHWs should be fully absorbed/ integrated into the community health system once well trained with their capacity continually built through refresher trainings to implement CBNP and other related interventions like IMCI.

8. Empowering and supporting community initiatives of CBNP by the district and local authorities in terms of providing technical support, skills capacity building in communication skills, appropriate behavioural-change messaging, and counselling of caregivers, as well as organization, management, and monitoring of services and outcomes.

9. In order to reinforce the already implanted concept of CBNP, decision makers at the districts and communities should build ownership of suggested interventions, while reducing top down approaches, by engaging all relevant stakeholders, including mothers, health workers, local leaders, coordination committees and district structures.

10. Analysis of high oedema cases, irrespective of the low prevalence of global and severe acute malnutrition should be done.

ECD Recommendations

1. Under the leadership of the ministry of education, the relevant stakeholders should finalize the standards of child schooling interventions and disseminate them to all key stakeholders, both implementers and donors.

2. There is need to improve the coordination of ECD activities at each level – national, district and sector level.

3. To make ECD a community based program and to mobilize the community towards a self management of this program, linking it with CBNPs will be essential.

4. UNICEF, MOH and Ministry of education should consider supporting the implementation of ECD activities for the group of 37 months to 6 years while integrating CBNP activities in community health centers.

5. District administration should facilitate cross district among community members in associations and ECDs by demonstrating known results from neighbouring districts.

1. **Annexes:**

Annex 1: CURRENT NUTRITIONAL STATUS AMONG CBN PARTICIAPNTS

Descriptive data Anthropometric results: children (based on WHO standards 2005)
In total 634 children were included in this analysis. …..% of the anthropometric data were excluded as flags as their measurements were not acceptable by SMART. The distribution of the ages is as seen in the table and graph below.

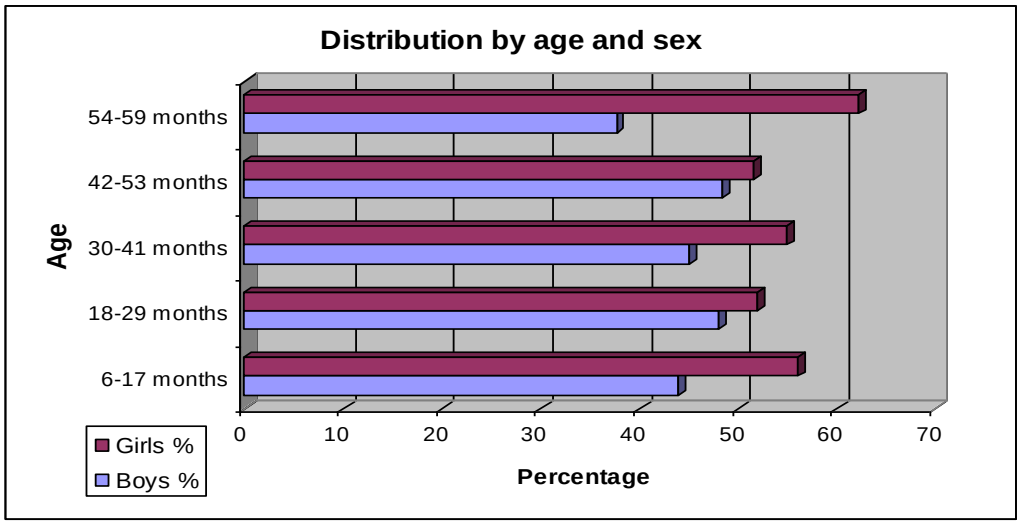
Table 5: Distribution of age and sex of sample

	Boys		Girls		Total		Ratio
	no.	%	No.	%	no.	%	Boy:girl
6-17 months	68	43.9	87	56.1	155	24.4	0.8
18-29 months	90	48.1	97	51.9	187	29.4	0.9
30-41 months	51	45.1	62	54.9	113	17.8	0.8
42-53 months	62	48.4	66	51.6	128	20.1	0.9
54-59 months	20	37.7	33	62.3	53	8.3	0.6
Total	291	45.8	345	54.2	636	100.0	0.8

It was possible to obtain the exact dates and months in most of the sampled children as they had Growth monitoring records with birth dates. A local calendar of events attached in the appendix was developed and used on the few cases that age documentation was not available. The overall boy girl sex ratio of 0.8 is within acceptable range and validates sample selection.

The graph below illustrates the age distribution by age and sex.

Figure 2: Population age and sex pyramid



Boys of all ages, particularly of 54- 59 months age constituted the largest proportion of the sample, probably because of the sampling methodology as it the boys were mostly out playing.

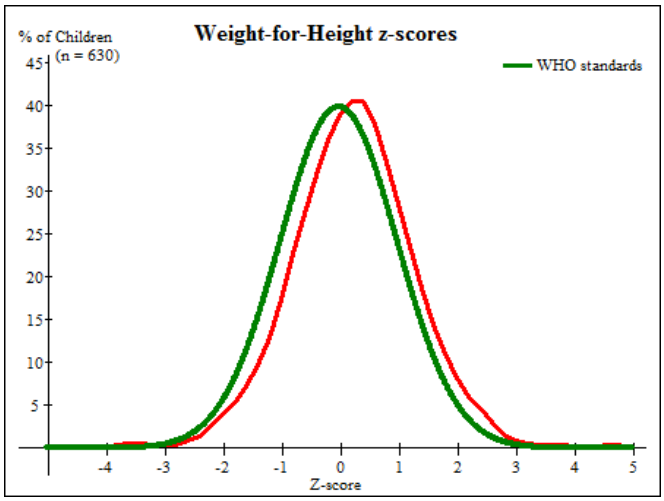
Prevalence of acute malnutrition: wasting

Table 6: Prevalence of acute malnutrition based on weight-for-height z-scores (and/or oedema) and by sex

	All n = 635	**Boys** n = 291	**Girls** n = 344
Prevalence of global malnutrition (<-2 z-score and/or oedema)	(15) 2.4 % (0.8 - 3.9 95% C.I.)	(9) 3.1 % (1.0 - 5.2 95% C.I.)	(6) 1.7 % (0.0 - 3.5 95% C.I.)
Prevalence of moderate malnutrition (<-2 z-score and >=-3 z-score, no oedema)	(6) 0.9 % (0.3 - 1.6 95% C.I.)	(4) 1.4 % (0.2 - 2.6 95% C.I.)	(2) 0.6 % (-0.3 - 1.5 95% C.I.)
Prevalence of severe malnutrition (<-3 z-score and/or oedema)	(9) 1.4 % (0.1 - 2.7 95% C.I.)	(5) 1.7 % (0.1 - 3.3 95% C.I.)	(4) 1.2 % (-0.4 - 2.8 95% C.I.)

The prevalence of oedema is 0.8 %

Figure 3: Distribution of WFH indicators in Z score:



The sampled population nutritional status is slightly worse than the reference population given that their graph is on the right of the reference population.

The concern over the high prevalence of oedema cases in spite of relatively low prevalence of SAM and GAM was cross checked with oedema cases reported at some of the facilities visited in Muhororo.

Table 7: Prevalence of acute malnutrition by age based on weight-for-height z-scores and/or oedema

		Severe wasting (<-3 z-score)		**Moderate wasting (>= -3 and <-2 z-score)**		**Normal (> = -2 z score)**		**Oedema**	
Age (mths)	**Total no.**	**No**	**%**	**No.**	**%**	**No**	**%**	**No**	**%**
6-17	155	2	1.3	2	1.3	151	97.4	0	0.0
18-29	187	2	1.1	2	1.1	178	95.2	5	2.7
30-41	113	0	0.0	1	0.9	112	99.1	0	0.0

42-53	127	0	0.0	0	0.0	127	100.0	0	0.0
54-59	53	0	0.0	1	1.9	52	98.1	0	0.0
Total	635	4	0.6	6	0.9	620	97.6	5	0.8

This analysis shows that 54- 59 months old are the most moderately malnourished (1.9%) and 6-17 months old are most severely wasted (1.3%), although all the oedema cases were noted in the 18- 29 months (2.7%). All the 5 cases (0.8%) of oedema recorded in this survey were kwashiorkor, with none being marasmic kwashiorkor.

The distribution curve below shows a slightly lower than the standards WHO curve of a normal population.

Prevalence of stunting:

Table 8: Distribution of stunting malnutrition based on height-for-age z-scores

Expressed in Z score	All N= 636	Boys (N= 291	Girls (N= 345
Global H/A Malnutrition < -2 SD	(320) 50.3% (43.6-57.0 C.I.)	(155) 53.3% (45.1-61.4 C.I.)	(165) 47.8% (39.7-55.9 C.I.)
Moderate H/A (<-2 z-score and >=-3 z-score)	(201) 31.6% (26.9-36.3 C.I.)	(90) 30.9% (24.6-37.2 C.I.)	(111) 32.2% (25.8-38.6 C.I.)
Severe H/A Malnutrition < -3 SD	(119) 18.7% (14.5-22.9 C.I.)	(65) 22.3% (16.9-27.8 C.I.)	(54) 15.7% (10.7-20.6 C.I.)

Figure 5: HEIGHT for AGE distribution

Compared to the reference population, the stunting prevalence of the sampled population is significantly different from the reference and should be of concern.

Table9: Cases of Oedema in health facilities

Health facility	MUAC Screening May 2009		Annual report, Statistics 2009	
	Measured	Oedema cases	Measured	Oedema cases
Muhororo	1435	7	1397	3
Rubona	1964	11	1812	4
Ntaganzwa	3127	22	3072	5
Rususa	4997	11	4500	7
Nyange A	3136	29	2851	4

Nyange B	3219	57	2878	5
Ntobwe	3303	19	2729	6
GASHUBI	3044	17	2563	5
TOTAL (%)	24225	173 (**0.7%**)	21802	39 (**0.2%**)

In the Health centres of KABAYA Hospital, the following prevalence was found in 2009 MUAC screening.

Table 10: Cases of Oedema in health facilities

Health facility	MUAC Screening May 2009	
	Measured	Oedema cases
Kabaya	2626	1
Rubaya	1508	2
Rugali	2115	0
Gasiza	2062	12
Gashonyi	1877	2
Mabuye	1895	0
Hindiro	1852	0
Muramba	1739	4
Ramba	4662	0
Total (%)	**20336**	**21 (0.1%)**

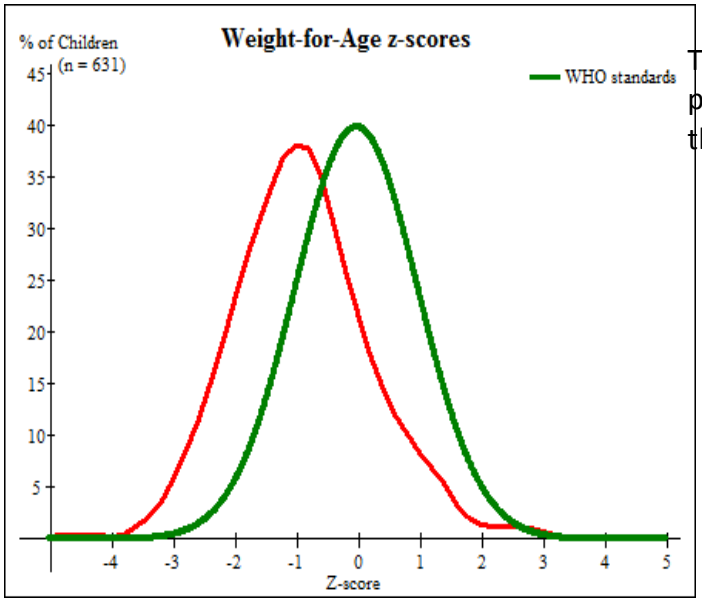
Prevalence of underweight

Table 11: Distribution of underweight malnutrition and oedema based on weight-for-age z-scores

Expressed in Z score	**All: N=** 631	**Boys: (N=** 289	**Girls: (N=** 342)
Global W/A malnutrition < -2 SD	(97) 15.4%(12.2-18.5 C.I.)	(49) 17.0% (12.2-21.7 C.I.)	(48) 14.0% (10.8-17.3 C.I.)
Moderate W/A (<-2 z-score and >=-3 z-score)	(82) 13.0% (10.3-15.7 C.I.)	(289): (43) 14.9% (10.9-18.9 C.I.)	(342): (39) 11.4% (8.3-14.5 C.I.)
Severe W/A Malnutrition < -3 SD	(15) 2.4% (0.8- 3.9 C.I.)	(289): (6) 2.1% (0.1- 4.0 C.I.)	(342): (9) 2.6% (0.7- 4.5 C.I.)

Prevalence of oedema : 0.8% (n=5)

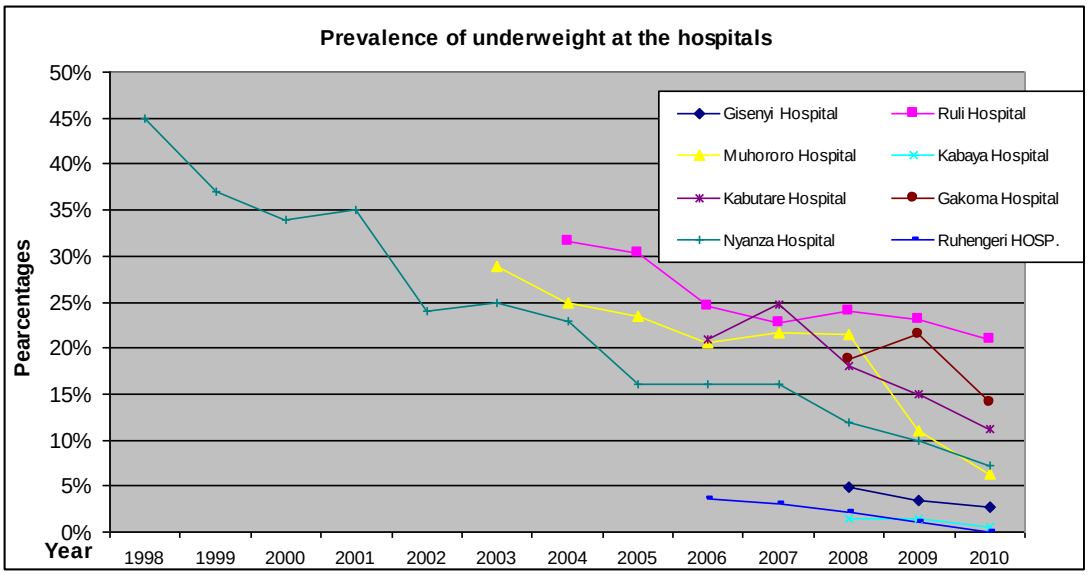
Figure 4: Weight for Age distribution



The graph shows that the sampled population has more underweight children than the reference population.

Trends of Underweight from the hospitals and health centres from the time that CBN was initiated in their respective facilities were as follows

Figure 5: Trends of underweight cases per hospital



The figures used here were based on those who attend GMP at the health centres but totals statistics compiled at their respective district are done at the hospitals. The graph generally illustrates a decline in underweight prevalence in all the hospitals, although in Gakoma district hospital, the increase and decrease zig zag trend could not be explained.

Most health centres had statistics only from 2008.

	Name of Health facility	2006	2007	2008	2009	2010
1	Simbi Health Centre		0.1%	4.3%	2.5%	1.2%
2	CDS SAVE				3.4%	4.5%
3	GACUBA				2.3%	0.3%

4	KARAMBO			0.6%	4.1%	5.9%
5	MBAZI			5.6%	18.0%	9.0%
6	RUSATIRA		22.4%	19.5%	18.0%	10.7%
7	KINYAMAKARA			2.1%	14.0%	8.7%
8	MURANDI	30.0%	27.0%	21.0%	20.0%	17.0%
9	CS RUHASHYA			19.9%	19.3%	17.9%
10	GATAGARA			18.0%	6.0%	6.0%
11	MUHOZA			4.0%	7.0%	2.0%
12	CS RUBONA					3.5%
13	GAKOMA H. C			12.8%	9.6%	5.7%
14	NYAMIYAGA			0.4%	1.2%	1.9%
15	NTAGANGWE			16.5%	17.0%	13.3%
16	MUSHA				20.5%	8.1%
17	GIKONKO			20.2%	17.0%	13.0%
18	CS MUHONDO					14.5%
19	KINIGI H.C				1.3%	0.2%
20	CS NYARUSANGE				10.0%	10.0%
21	CS MUDENDU				4.1%	2.5%
22	GISENYI H.C.			0.4%	2.8%	5.2%
23	RUSHASHI		27.7%	27.9%	22.2%	18.7%
24	NYAKINAMA					1.1%
25	CUSP					2.2%

Annex 2: Sampling frame

Districts in which CBN is being implemented with UNICEF and MoH support:

	Name of district	Name of main district hospital	Start date of CBN	Province	Any comments
1	Nyanza	Nyanza	1998	Southern province	Busoro Nkorerora project
2	GISAGARA	Gakoma	Unicef supported		No intervention as yet, although Gakoma are receiving support. Kibilizi not UNICEF funded but will also be evaluated as EIP is active
		Kibilizi	EIP supported		
3	HUYE	Kabutare	2006		
4	BURERA	Butaro	2006	Northern Province	
5	MUSANZE	Ruhengeri	2006		
6	GAKENKE	Ruli	2003		
7	RULINDO	Rutongo	2006		
8	GICUMBI	Byumba	2006		
9	RUBAVU	Gisenyi	2006	West province	
10	NGORORERO	Kabaya, Muhororo	2003		ECD project
11	NYABIHU	Shyira	2006		
12	RUSIZI	Mibilizi	2003		

13	NYAMATA	Bugesera	2003	East province	

Cluster distribution

District/ hospital	Population covered by CBN	Assigned cluster no.	Total no. of clusters with CBN	Without CBN
Nyanza	18, 663	1,2,3,4	4	2
Kabutare- Huye	37, 461	5,6,7,8,9,10	6	2
Ruhengeri- Musanze	21, 683	11,12,13,14	4	2
Ruli- Gakenke	12, 190	15,16,17	3	1
Gisenyi- Rubavu	36, 866	18,19,20,21,22,23	6	2
Ngororero- kabaya	15, 636	24,25,26	3	1
Ngororero- Muhororo	23, 692	27,28,29,30	4	2
Gisagara- Gakoma		31,32, 33, 34	4	2
TOTAL			**34**	**14**

POPULATION FIGURES used

District	POP. Covered by CBN	Pop. Not in CBN	Total popltn in district	20% of kids not in CBN	20% of kids in CBN
Nyanza	18663	6158.79	24821.79	1231.758	3732.6
Kabutare- Huye	37461	6368.37	43829.37	1273.674	7492.2
Ruhengeri- Musanze	21683	4553.43	26236.43	910.686	4336.6
Ruli- Gakenke	12190	2072.3	14262.3	414.46	2438
Gisenyi- Rubavu	36866	13271.76	50137.76	2654.352	7373.2
Ngororero- kabaya	15636	6098.04	21734.04	1219.608	3127.2
Ngororero- Muhororo	23692	1658.44	25350.44	331.688	4738.4
Gisagara			0	0	0
	166191	40181.13	206372.13	8036.226	33238.2

Annex 3: List of persons interviewed

1. BIENVENU Leon: EIP/ World Relief; Nyamapable
2. BYIMANA ADRIEN in charge of community health, Karambo H.c / Gisenyi hospital
3. Christine; in charge of Nutrition, Ruhengeri Hospital
4. Dr HAKIZIMANA Jean Marie Vianney, Director of Kabaya Hospital
5. Dr Jean Caude, Director of Kabutare District Hospital
6. Dr NDAGIJIMANA Sylvestre, Director of Muhororo Hospital
7. Dr NGIRABEGA Jean de Dieu, Director of Ruli Hospital
8. Dr Sylvestre NDAGIJIMANA Director of hospital, Muhororo.
9. Dr Rose Luz: team leader EIP
10. Emanuel Shamara, head of health centre, Busoro
11. Florence MUKARUBIBI, supervisor Muhororo Hospital
12. Gédéon RUBONEZA, Major of Ngororero District
13. HANYURWIMFURA Innocent, Health center manager RUHASHYA H.C
14. HATEGEKIMANA Dassan, in charge of CBN implementation, Nutrition Desk, MOH
15. Isaack NTAHOBAKURIRA,Lecturer NUR/ school of public Health
16. ISABANE Theoneste, director of Health, Musanze District
17. KAMPAYIRE Appoline, Vice Major social affairs, Nyanza District
18. MPEMBYEMUNGU Winifride, Major of Musanze District
19. MUGENZI Gérome, vice major Economic affairs, Musanze District
20. Mukahigiro Godelive, the president of Abitangiyu Burezi association, Busoro,
21. MUKAKIBIBI Mégitride,Vice Mayor in charge of social affairs, Ngororero District
22. MUKANILIGIRA Berthe: EIP/ IRC Nutrition Officer Ngomi and Kirehu
23. MUKESHIMANA Myriam, in charge of Nutrition, Gisenyi HC, Giseny Hospital,
24. MUTABAZI Zabulon, in charge of Nutrition, Nyanza Hospital
25. Nayigiziki Alphonsine, Health centre Ntobwe, Nyanza
26. NDACYAYISENGA André, head of Nyange health center, Ruli Hospital
27. NDINDABAHIZI Jean Claude, Vice Major of development affairs, Ngororero District
28. NISABERA Marie Louise, in charge of nutrition Busasamana HC / GisenyiI hospital
29. Nkuru Pascal: EIP/ Concern worldwide; Nutrition officer Nyaruguru and Gisoyoara
30. NTAKIRUTIMANA J. Bosco: EIP- World Relief Nutrition Officer
31. NYIRABABILIGI Josephine, in charge of Nutrition, Ruli Hospital
32. NYIRASINAMENYE Jeanne, in charge of Nutrition, Muhororo hospital
33. Patricie MUGORENEJO.ECD Kabageshi/Ntobwe, Muhororo Hospital
34. Petronile; Director of Health, Huye District
35. Placide, In charge of Nutrition, Gisenyi Hospital
36. Professor Cyprien MUNYANSHONGORE: NUR/ School of Public Health
37. RURANGWA Raphaël, Director of Planning, Ministry of Agriculture
38. SANGWA Yves, in charge of community health activities, Ruli Hospital
39. Sr Marie Belancille, Gakoma HC, Gakoma Hospital
40. TWISHIME Hyacinhte, Vice Major Social affairs, Gakenke District
41. UWAMAHORO Ancille, in charge of nutrition, Nyange Health center, Ruli Hospital
42. UZAYEZU Philomene, in charge of Nutrition, Musha health center, Gakoma Hospital
43. VENERANDA KABARERE, Education Officer, UNICEF

Annex 4: Hospitals, Health centres and villages visited by district

District Hospital	Health centers	Villages
RULI	Nyange	Gaseke
	Rushashi	Mataba
	Muhondo	Gihinga
GISENYI	Gisenyi	Kivumu
		Giponda
	Busasamana	Gakuta
	Rubavu	Bihe
	Mudende	-
	Karambo	-
	Gacuba	Karundo
	Nyundo	Kavomo
RUHENGERI	Nyakinama	Gisorora
		Kigasa
	Kinigi	Nyarubuye
	Murandi	Kavuganda
	Muhoza	Bitare
	Bisate	Rwunga
KABAYA	Kabaya	Nyamugeyo
		Ngoma
	Ramba	Gasumo
MUHORORO	Rubona	Nyabigogoro
	Ntaganzwa	Rwasare
	Gashubi	Gasura
	Rutobwe	Rutambiro
NYANZA	Gatagara	Kinyogoto
		Cyumba
	Nyarusange	Karambo
	Nyamiyaga	Nyundo
GAKOMA	Gakoma	Rusave
	Save	Kavumu
	Musha	Rusenyi
	Gikonko	Gasagara
KABUTARE	Mbazi	Kabakono
	Simbi	Ruhinga
	CUSP	Gasoro
		Mamba
	Ruhashya	Murama
	Rusatira	Mugejuru
	Kinyamakara	Gasharu
TOTAL	**34**	**37**

Annex 5: List of references:

Rwanda internal documents

1. CBN Situation of Community Based Nutrition Programme In UNICEF Supported Districts in Rwanda – Jeanine 2009
2. CBN strategic plan
3. Demographic Health Survey
4. FIRST NATIONAL NUTRITION SUMMIT November 24 – 26 at Laico Umubano Hotel, Kigali; Investing in Nutrition as a Foundation for Sustainable Development in Rwanda. MOH 2010
5. IYCF assessment report
6. IYCF protocol
7. Kitchen garden guide (draft)
8. National multi- sectoral strategy to eliminate malnutrition in Rwanda- Action plan for implementation 2010 – 2013 published in June 2010.
9. MINISTRY OF HEALTH Report on the Data Collected in May 2009 for the National Emergency Plan to Eliminate Malnutrition in Rwanda (July 2009)
10. National Nutrition Policy (MoH 2007)
11. Protocol of CBN program
12. Report of micronutrient deficiency assessment in report (School of public health 2008)
13. Revised ECD proposal: UNICEF'S SUPPORT FOR ACCELERATING THE PROCESS OF ECD/HIV/AIDS ACTIVITIES IMPLEMENTATION IN 2005 IN RWANDA
14. Rwanda Interim Demographic and health survey 2007- 08 (MoH Rwanda *et al*)
15. Training material for management of under-nutrition at community level
16. Training modules on CBN

International policy documents

1. The Case for Preventing Malnutrition Through Improved Infant Feeding and Management of Childhood Illness, T.Schaetzel, a. Nyaku, Infant & young child nutrition project
2. Scaling up nutrition: a framework for action (World Bank *et al* 2010).
3. The neglected crisis of under nutrition: DFID's strategy (Undated/ 2009).
4. HUMANITARIAN ACTION REPORT MID-YEAR REVIEW. (Unicef 2010)
5. Global guidelines for early childhood education and care in the 21st century
6. GLOBAL HUNGER INDEX THE CHALLENGE OF HUNGER (IFPRI, Concern Worldwide and Welthungerhilfe 2010)

Annex 6: Data collection tools/ Questionnaires used

1. Questionnaires for District authorities, MoH field Staffs and other Nutrition Focal Points, at districts and health centre levels.

1. Relevance/ appropriateness

Main question: Is the nutrition operational strategy & nutrition interventions supported by UNICEF and implemented by MOH relevant to the individual district context?

a) Do you think that malnutrition is a main problem in your district? Explain.

b) Does the current CBN intervention fit with the specific nutrition problem in the district?

c) Is the nutrition implementation strategy adapted to the local community organisation, local customs and culture?

d) Any cultural practices not considered in program?

e) -To your knowledge did inclusion in the CBN program make excessive demands upon families and communities?

f) Were the preconditions, risks and assumptions properly defined from the beginning up to now? If yes, what were the risks? How do you think the risks can be reduced?

g) Were the beneficiaries and/ or local stakeholders involved in the problem and solution analysis?

h) Did MoH/ implementing partner explain to the population their participation/involvement before the program was begun?

i) Was the partnership with the MOH/UNICEF an appropriate way to ensure implementation and sustainability of the CBN activities?

j) Was there a partnership/ and coordination with UNICEF, MOH and other NGOs (international or local) stakeholders on CBN matters?

Programme Objectives versus needs

Main question: What has been the evolution of the malnutrition rates since CBN started?

Fill in the sheets attached

a) What are the prevailing nutrition and public health concerns of the targeted population?

b) What are the proposed objectives / results /activities of the different implemented CBN projects?

c) Are there any other health and nutrition programs in the district/ village either by NGO, government, religious groups or any other donations?

d) What are the challenges facing CBN implementation?

e) What are your recommendations to better implement the program?

1. Connectedness/Sustainability

Main question: Did the CBN interventions take into account the longer-term context?

a) Is there a strategy in place to ensure the dependence on donor funding is reduced? Is this strategy going on effectively? How is it integrated into the programme?

b) Was there capacity building for the MOH staff? How successful were the activities to ensure sustainability of the capacity building of the programme?

c) Do MoH/ UNICEF pay an incentive or salary to the staff implementing CBN?

d) Is the CBN free for the beneficiaries?

e) How do MoH/ UNICEF perceive the "incentives" or "free access to CBN" in terms of sustainability?

f) Did you receive any kind of support from the national level to implement CBN program?

2. Coherence and Coordination

Main Question: What steps were taken by MoH/ UNICEF to ensure the integration of the CBN within the Primary health Care and other related sectors and NGOS?

a) How is the project activities coordinated with other national/international agencies and bodies? How has MoH/ UNICEF adapted its nutrition strategy considering the presence of other partners/ NGO in the same intervention zone and field?

b) What is the coherence of CBN intervention with national nutritional or health policy at the community and district level?

c) Is there coherence between other donors and partners with CBN programme interests?

d) Do you think the district officials are doing their role of coordinating and collaborating with all relevant partners to ensure good implementation and impact of CBN interventions

e) Does the district have meetings/discussions with all partners to share the situation on the progress of interventions?

3. Coverage

Main question: Is there appropriate knowledge and participation of the CBN activities at community level? What could be done to improve it?

a) Has MoH/ UNICEF analysed the coverage of the CBN programme? In case of not, why? If yes how? (out of xxx villages, how many have CBN PROGRAMMES?)

b) Is CBN geographical coverage sufficient?

c) Is the targeted population properly covered? How many beneficiaries are in CBN programme in this particular district? How does this compare to the total population in the geographical targeted catchment area?

d) What was the criterion used to identify and target the beneficiaries enrolled in the CBN programme?

e) Are there any ways in which the program could have improved number of beneficiaries and their participation?

4. Effectiveness

Main question: Is there any need for MoH/ UNICEF to improve the performance and effectiveness of CBN programme activities (e.g. capacity building of staff and, quality of nutrition indicators in CBN, education sessions...)

a) Were the CBN services delivered to the beneficiaries in accordance with the planned ones in the different projects (results and indicators)?

b) Compare actual schedules and action plans. Did the planned action plans take place in accordance with realized ones? If not why? Were these deviations justified? How could this be improved for the future intervention?

c) Were any changes proposed during CBN programme implementation? Were these changes adapted on time to fit into the CBN implementation? Were these adaptations effectively implemented? What have been the effects?

d) Was there any health and nutrition education sessions as a CBN activity? If yes, was health education done in a structured, planned manner and closely monitored?

5. Impact

Main question: What direct and indirect evidence is available that the CBN actions taken contributed to the improvement of the situation?

a) Has the nutrition status of the population improved?

b) Has the population increased their knowledge and improved their practices that aim at preventing malnutrition?

c) What are the positive and negative impacts of the CBN programme?

d) What is the additional value of the MoH CBN approach on the impact of nutrition programmes? Is the outcome satisfying?

e) Are the indicators used to evaluate the impact of the work adequate? Is there any way to improve the impact of the CBN and the way it is measured?

6. Efficiency:

Main question: Was it expensive to implement this CBN programme?

a) Who (staff) implements the CBN? Does MoH work with locally identified/ recruited staff, volunteers for the CBN?

b) Is the number of staff working in the CBN programme justified for the number of beneficiaries?

c) Were any logistics and financial concerns affecting CBN programme run in an organised and rational, efficient manner?

d) Did MOH/UNICEF incur high overhead costs in order to implement the CBN programme? Were these costs necessary?

e) Are there any ways to reduce the cost of implementing CNB programme while ensuring maximum outcome?

f) What is the cost of implementing CBN compared to other interventions such as PHC, CMAM? In general, which seems to be more efficiency?

g) Does the community have locally available foods that are enriching and that can sufficiently prevent and treat malnutrition? What are they?

h) Can the production of these foods be scaled up? If yes how? If no why?

i) Does the community have any income generating activities in CBN program and how has this influenced the impact? If yes how? If no why?

7. Monitoring

Main question: What tools are developed and used to monitor the progress and impact of CBN programmes? (Take sample of any monitoring and/ or reporting formats). Are they implemented effectively? How can they be improved?

a) Were appropriate and relevant indicators developed for the monitoring of the CBN programmes? Are the monitoring tools/indicators being used?

b) Is the information delivered on time (monitoring data / financial follow up) in order to facilitate decision-making? If not what are the constraints and how could they be released?

c) How have lessons learned from previous monitoring and evaluation been incorporated into the program, and shared with partners?

d) Are monitoring/ evaluation outcomes used to improve the quality of the programme?

Give possible recommendations for future programming

2. Focus group discussion questionnaires for beneficiaries (caretakers, education sessions…)

District/ Location_____ Village_____

Date _____ Number of participants: Men _____ Women_____

Define the beneficiary group:

Active beneficiaries: Been actively involved in CBN activities on a monthly basis in the last 6 months ……

Previous beneficiaries: Have participated in CBN activities previously, though they are currently not actively involved in CBN…

1. Relevance and appropriateness

Main question: do you think the CBN program was appropriate in this area

Sub questions for enumerators to probe further.

a) Was there need for the program?

b) Are there any other health and nutrition programs in the district/ village either by NGO, government, religious groups or any other donations? If yes which one?

c) Was the program culturally appropriate?

d) Is there any food provided locally by any other program/NGO? If yes, Were the foods provided palatable, appropriate and acceptable by local population?

e) Any other cultural practices not considered in program?

f) To your knowledge did inclusion in the CBN program make excessive demands upon families and communities?

g) Were there any children (and adults) known to have died of hunger in the last 3 months?

h) Do you think the intervention has made a difference in the way malnourished children are identified, prevented and treated? If yes, how? If no, why?

i) Does the community have locally available foods that are enriching and that can sufficiently prevent and treat malnutrition? What are they?

j) Can the production of these foods be scaled up? If yes how? If no why?

2. Program design

Main Question: Were you involved in designing the CBN project?

Sub questions for enumerators to probe further.

a) How many of you know why you were in the CBN program? What are the reasons?

b) Other than attending the nutrition program, in what ways were you were involved in the program?

c) How much time/ number of days in a week/ month do they come for the CBN?

d) What is your feeling on the way the program was implemented?

e) What were the challenges encountered and possible solutions suggested for better future programming.

f) Did you receive any health education while on the program? If yes what were the topics?

g) Do caretakers miss out on other important activities- market, health campaigns, to attend CBN?

3. Efficiency

Main question: What do you think about the cost of implementing this CBN?

Sub questions for enumerators to probe further.

a) Were suitable beneficiaries/ volunteers identified and how?

b) Were care givers/ beneficiaries aware of program goals and kept informed of any changes?

c) Did the beneficiaries incur any costs as a result of participation in the CBN? If YES, what was the nature of the costs?

4. Impact

Main question: Were there any benefits that you or the community gained due to the CBN program?

Sub questions for enumerators to probe further.

a) What were the social, economic, technical and environmental impacts?

b) What happens to the siblings and other family members of those in program?

c) Is there stigma attached with participating in the CBN program?

d) Are there any serious environmental effects as a result of implementing the CBN?

e) What will happen to the beneficiaries if the program closes?

f) Do you know if all the children who were supposed to be in the program attended?

g) What were the reasons for non attendance & defaulting?

h) Were the mothers able to identify malnourished children not in the program and refer them to the program?

5. Coverage

Main Question: Do you know if all the BENEFICIARIES (children, pregnant and lactating women) who were supposed to be in the CBN program WERE admitted? If NO, what were the reasons for non participation?

Sub questions for enumerators to probe further.

a) Did you face any difficulties accessing the program?

b) Do you any other groups of people that could be targeted in such CBN interventions?

c) Any environmental issues of concern e.g. distance

d) Gender issues -Were women able to access the programs given the cultural norms?

e) Any conflicts/population movements/displacements that affected program in the district?

f) Were beneficiaries of the CBN faced with any stigmatization issues in the community? If YES, how was the problem overcome?

g) Are there any ways in which the program could have improved number of beneficiaries (improve program coverage?

h) How could the program be sustained?

6. Conclusion

a) How should CBN program be implemented in the future?
b) Any other thing they want to say- good or bad/ lessons learnt?

3. Focus Group Discussion with Non Beneficiaries – the general community, both men and women

District/ Division _____ Village_____
Date _____ Number of participants: Men_____ Women_____

Definition: Non beneficiaries: is someone who has never participated in any CBN activities.

1. Although you were not a registered beneficiary, did you participate in CBN program in any way? Explain how if yes. Explain why if no.
2. What was the process and criteria in selecting the beneficiaries for CBN program?

   - Was this process well explained to the community in general?
3. Does the CBN programme have any negative impacts on the beneficiaries?
4. Do you think the CBN program has any negative impacts on the non beneficiaries?
5. What are the most significant changes you have observed in the lives of children, pregnant and lactating women in the community since they joined the CBN program (and any other category that we may have)?
6. Do you think the intervention has made a difference in the way malnourished children are identified, prevented and treated? If yes, how? If no, why?
7. Did the program implementation period onset coincide with the periods that the community experienced highest hunger levels? Are there periods during the year when you think CBN is more crucial?
8. Were there any children (and/or adults) known to have died of hunger when the program started in ……?
9. What were the strengths and weaknesses of CBN program?
10. Any hunger related deaths during the last 3 months?
11. How should CBN programme be organised if it has to continue? Or if a new one is to be opened in a new region?
12. What could be improved/ Modified on the way forward?
13. Any alternative CBN activities, which you could suggest to achieve better impact in the life of beneficiaries and non beneficiaries?
14. If UNICEF and MOH withdraw their support, can CBN be sustained?

4. Focus Group Discussion/ interview community volunteers and CHWs

District _____ Location_____
Date _____ Number of participants: men: _____ women_____
Define type of Community volunteer
MOH/ CBN CHWS……NGO volunteers…….Other Government/ sector volunteers……

1. Do you know what CBN is? If yes, explain what it is.

2. Do you work with volunteers? How many volunteers/CHW are working in this village or sub village?

   How was the selection of Community Volunteers done? Are there any MHAs (maternal health agents), teachers, community leaders etc participating in CBN? If yes, what are their roles?
3. Were volunteers selected from each village? How many villages, sub villages do you work as a CHW/ volunteer? What is the population of the village(s) you work in?

4. What motivates you to be a CBN volunteer/CHW?

5. What is your role as a CBN community volunteer/CHW?

6. Were you trained in MUAC screening and identification of marasmic and kwashiorkor? Have you received any training by MOH and/or UNICEF since 2006? How much training/ Topics? (note the number of people in the audience trained)

7. Which children/ beneficiaries do you refer to the program?

8. Did you trace (follow up) absentees and defaulters?

9. Any feedback on tracing defaulters and reasons for defaulting and being absent?

10. Is there any other food and health related program in the village?

11. Were there any linkages between the PHC, CBN and any other health and nutrition programs in the same village? If yes, which ones?

12. Do you think the intervention has made a difference in the way malnutrition are identified, prevented and treated? If yes, how? If no, why?

13. What were the strengths and weaknesses of the CBN program component?

14. If UNICEF/ MOH withdraw the support, would it continue?

Conclusion
1. How should CBN program be implemented in the future?
2. Any other thing they want to say- good or bad/ lessons learnt?

5. Key interview questionnaire with Clinic Nurses and health centre staff implementing CBN and any other person who may be in charge of CHWs

1. In your opinion, how important is the problem of malnutrition in this area?
2. Does this problem warrant the presence of the CBN program? What is the added value of the CBN?
3. What were your skills / knowledge on the detection, prevention and management of malnutrition before the implementation of the CBN?
4. Has your ability to prevent, detect and manage malnutrition been strengthened?
5. What are the strengths and challenges of the CBN program?
6. How do you identify the beneficiaries for the CBN program?
7. Is there a referral system in place for the beneficiaries?
8. Considering the importance of nutrition issues in this area, is there another approach that could be used along side the CBN program?
9. If UNICEF and MOH support stops, would CBN programme continue
10. What would you consider to be the impact of CBN- positives and negatives?
11. What are the prevailing nutrition and public health concerns of the targeted population?
12. What are the proposed objectives / results /activities of the different implemented CBN projects?
13. Are they relevant to the needs assessment analysis and in improving the health and nutrition status of the population?
14. Are there any other health and nutrition programs in the district/ village either by NGO, government, religious groups or any other donations?
15. What are the challenges to ensure the proper implementation of the nutrition program?
16. What are your recommendations to better implement the program?
17. Are the monitoring tools/indicators being used?

<u>Conclusion</u>

1. How should CBN program be implemented in the future?
2. Any other thing they want to say- good or bad about the CBN programme/ lessons learnt?

6. Focal group discussion/ key interview questionnaire with Community Leaders

1. Do you know about the CBN program? If so, do you know their activities in your village / neighbourhood? do you think the CBN programme can solve the nutrition problems in this area?
2. What are the health and nutrition problems in your village/district? Do you think that they are the important problems you have in your village/District?
3. What is the perception of theCBN program from the community?
4. Do you consider that theCBN program meets the health and nutrition needs of your village / neighbourhood?
5. Which are the strengths and difficulties encountered with CBN?
6. TO what extent has the community participated in the CBN PROGRAMME? How would you like to participate?
7. How do you compare CBN activities with other health and nutrition programmes available in your area?(public/private)

Conclusion

How should CBN program be implemented in the future?

Any other thing they want to say- good or bad about the CBN programme/ lessons learnt

7. Interview with the district Mayor

a) Do you think there are malnutrition problems in your district?

b) What is your opinion on CBN programme in your district?

c) What is the impact of CBN programme on your District?

8. Villages where there are not CBN programs:

a) Have you ever been informed on the existence of CBN program? If yes what is it?

b) Where is being implemented in your district? In what villages?

c) Why is CBN not being implemented in this village?

d) Are there another NGO working on other nutrition programmes in these village?

e) Have MoH/ UNICEF/ other organisations done nutrition context analyses of your village?

f) Are there potential financial opportunities to implement CBN programmes in your village? What kind of needs to implement it in your village?

Checklist per hospital/ health centre: 1 Sheet per health facility:

Name of facility: …… Name of district: …… Catchment's population…….

Year of CBN implementation	Prevalence of GAM	Prevalence of SAM	Prevalence of stunting	Prevalence of underweight	HIV prevalence	Anaemia prevalence	Vit A suplementn	Overweight concerns
1998								
1999								
2000								
2001								
2002								
2003								
2004								
2005								
2006								
2007								
2008								
2009								
2010								

Anthropometric survey data form

District _____Village: _____Cluster No.____Date: _____ Team number: _____

Child no.	HH. no.	Sex (f/m)	Birthday	Age in months	Weight (kg)	Height (cm)	Oedema (y/n)	In CBN (y/n)	MUAC	Is GMP marked on card Y/ N	Measles imation Y/ N
1											
2											
3											
4											
5											
6											
7											
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