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FIELD PLACEMENT II

COORDINATED BY:
Dr. ANGÈLE MUSABYIMANA, MD, MPH

Topic: Accelerating stunting reduction in Nyarugenge District

Group 4. Composed by:

1. **Olive UMULISA**
2. **Odette UWERA KAMANZI**

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Acronyms

AEE: African Evangelistic Enterprise Rwanda
ASM : Agent de Santé Maternelle

BMI : Body Max Index

CHW: Community Health Worker

CRS: Catholic Relief Services

ECD: Early Childhood development

FBO: Faith based Organization

FFLS: Farmer Field Learning School

HIV/AIDS: Human immunodeficiency virus infection and acquired immune deficiency syndrome

IMCI: Integrated Management of Childhood Illness

JHPIEGO: Johns Hopkins Program for International Education in Gynecology and Obstetrics

LODA: Local Development Agency

MSH: Management Science for Health

NGO: Non-Governmental Organization

PMTCT: Prevention of Mother-To-Child Transmission

RDHS: Rwanda Demographic and Health Survey
SILC: Saving and Internal Learning Communities

SFH: Society for Family Health

UNICEF: United Nations Children's Fund

VCT: Voluntary Counselling and Testing

WHO: World Health Organization

Background

The magnitude of the priority health problem

Nutrition is a fundamental pillar of human life, health and development across the entire life span. From the earliest stages of fetal development, at birth, through infancy, childhood, adolescence, and on into adulthood and old age, proper food and good nutrition are essential for survival, physical growth, mental development, performance and productivity, health and well-being. It is an essential foundation of human and national development (1)

Adequate nutrition is essential in early childhood to ensure healthy growth, proper organ formation and function, a strong immune system, and neurological and cognitive development. Economic growth and human development require well-nourished populations who can learn new skills, think critically and contribute to their communities. Child malnutrition impacts cognitive function and contributes to poverty through impeding individuals' ability to lead productive lives (2)

According to the latest estimates for 2016, rates of stunting among children are on the decline worldwide but remain very high in most parts of Africa. Globally, 155 million children under five years of age across the world suffer from stunted growth. The prevalence of stunting fell from 29.5 percent to 22.9 percent between 2005 and 2016(3).

Stunting prevalence rates vary widely across nations. The highest rates can be found in south central Asia and eastern Africa, where about half of the children suffer from some degree of growth retardation. In Latin America, the severity of stunting is considerably lower. The trend in Africa is disturbing, where the number of children who are stunted has been increasing, although the prevalence is decreasing. The health consequences of the current high prevalence of child growth retardation in developing countries are severe (1)

Stunting jeopardizes child survival and development by contributing to child mortality, morbidity, and disability, including impaired or non-optimal physical growth and cognitive development. Stunting, or low height for age, results from chronic undernutrition, frequent infections, and other conditions that reduce absorption of important nutrients. Stunting is most likely to occur within the first 1,000 days, the period from conception through the child's first two years of life. Stunting is associated with sub-optimal mental and physical development, having long-term impact on

intellectual functioning, school performance, future earnings, risk of obesity, and risk of chronic diseases. These effects are often irreversible, even with improvements in nutrition after age 2 (4)

In 2008, *The Lancet* published an important series on maternal and child undernutrition that concluded that more than a third of child deaths and 11% of the total disease burden worldwide were due to maternal and child undernutrition (4)

Child stunting is a result of long-term chronic consumption of a low-quality diet in combination with morbidity, infectious diseases, and environmental problems. It is a lifelong condition that results from long-term nutritional deprivation that can occur both pre- and postnatally, inadequate child care, poor environmental, and sociocultural conditions (5)

Stunting is a manifestation of chronic malnutrition, resulting from an inadequate quantity and quality of food intake and repeated bouts of infection (WHO 2015). It occurs early in life, with the highest risk during a child's first two years of life, and after that period is largely irreversible (Black et al. 2013). Stunting is associated with weaker immune responses, and stunted children have elevated morbidity and mortality risk. Meta-analytic studies reported that stunted children have a two times higher risk and severely stunted children a six times higher risk of dying from common childhood infections—including acute respiratory infections, diarrheal disease, and measles—than children who were not stunted (McDonald et al. 2013). It is estimated that malnutrition is an underlying cause of about 45 percent of all deaths in children under age five globally (Black et al. 2008) and that about 14 percent of all deaths of children under five can be attributed directly to stunting (Danaei et al. 2016) (6)

The magnitude of stunting in Africa is found as one of the highest in the world and the trend shows stagnating rather than progress. UNICEF-WHO-and the World Bank in 2012 estimates of the trend of stunting in Africa shows almost stagnant prevalence over the past two decades; even though, some countries made substantial progress. Therefore, it is clear to see that the determinant of stunting in Africa are various and multidimensional; and its trend shows stagnation rather than progress in most of the region (7)

Since 1995, progress in reducing chronic malnutrition and its principal manifestation, stunting, has

been slower in Africa than in other regions. Over the past two decades, among all World Bank regions, the Africa region has seen the lowest average annual decline in stunting prevalence. While both the Europe and Central Asia region and the East Asia and the Pacific region have managed to reduce stunting prevalence by almost two-thirds, Africa achieved a reduction of only one-quarter during the same period. Furthermore, because of high fertility and population growth, the number of stunted children on the continent within that time frame actually increased by about 12 million and this upward trend will likely continue in the future. Although there is some variation, in virtually all African countries more than one in five children is stunted and in nine countries stunting prevalence exceeds 40 percent, and in another 14 countries – 30 percent (6).

Globally, more than one in four children under the age of five years is too short for their age. Sub-Saharan Africa and South Asia suffer the heaviest burden, with 75% of the world's stunted children (UNICEF 2013) (8).

In Rwanda, rates of stunting, underweight and wasting have all decreased, and there has been a remarkable reduction in anemia in children under 5. However, even with these improvements, chronic malnutrition is still far too high, with disparities that overwhelmingly affect rural children: 47 percent of rural children are stunted, as compared with 27 percent of urban children. Regions with the highest rates of food insecurity also have the highest rates of stunting: 51 percent and 50 percent in the Northern and Western provinces, while the lowest rates (24 percent) are in the city of Kigali. Mothers' levels of education and wealth quintile have a clear inverse relationship with prevalence of stunting. Undernutrition in children is attributed not only to food insecurity and poverty, but also to inadequate feeding, particularly during weaning, and insufficient intake of micronutrients — only 20 percent of Rwandan children consume food rich in iron, which is critical to growth and cognitive development (9).

Nationally, 38 percent of children under age 5 are stunted, and 14 percent are severely stunted Analysis by age group indicates that stunting is apparent even among children less than age 6 months (11 percent). Stunting increases with the age of the child, rising from 18 percent among children age 6-8 months to a peak of 49 percent among children age 18-23 months before gradually declining to 37 percent among children age 48-59 months. There is a difference in level of stunting

by sex (43 percent among boys and 33 percent among girls). Stunting shows only small differences by interval between births. Stunting is more prevalent among children born very small (61 percent) compared to children born with average size (35 percent).
Forty-nine percent of children born to undernourished mothers (BMI below 18.5 kg/m2) are stunted compared to 40 percent of children whose mothers have a normal BMI (18.5-24.9 kg/m2) and 29 percent of children whose mother is overweight-obese. The disparity in stunting prevalence between rural and urban children is substantial: 41 percent of rural children are stunted, as compared with 24 percent of urban children (10).

Associated factors of stunting

Past studies have shown that economic status, place of residence, education of the mother, age of the mother, occupation of the mother, source of water, availability of latrine, child morbidity, sex of the child, age of the child, method of feeding, age of initiation of complementary feeding, birth interval of the child, total number of children ever born to the mother, and maternal nutritional status were factors associated with undernutrition among under-five children (11).

A study conducted by Afework. M et.al from Ethiopia, demonstrate that chronic malnutrition is a public health problem in the study communities; the rate of stunting becomes more apparent as children grow older. The same study confirmed poor complementary feeding practice is the main determinant of stunting (7).

Another systematic review conducted by Lindsay H. Allen, reveals that in addition to poor complementary feeding practice, many children in developing countries are already nutritionally depleted by the end of the first year of life associated with maternal under nutrition (7).

Several studies have demonstrated the connection between stunting and household income. In line with this Smith LC and Haddad L estimated that the effect of economic growth on changes in under nutrition and economic growth leads to a small but significant reduction in stunting.
A review by Luchuo. E et.al also noted that despite extensive global economic growth in recent decades, including in some of the poorest countries in Africa, millions of people remain locked in a vicious cycle of hunger and poverty and this leads to irreversibly stunted development and less

productive lives. A low level of education especially in women is also reported as key perpetuators of poor nutrition practices in this Region of the World (7).

A meta-analysis by Henry W.et al reported that male children below five years of age are more likely to become stunted than their female counterparts. Similarly, systematic review by R. Elena.et al provide similar evidence that male gender as negatively associated with Height for Age z-score, as previously reported by others. Other studies proposed this may be resulted by the fact that biological, behavioral, and socio-cultural mechanisms of gender differences. They justify that biologically, female subjects have an advantage for better health and longer survival because of the role of sex hormones in modulating lipid levels and increasing immune response (7).

Poverty and poor living conditions are associated with stunting. Every day, more than 100,000 people move to slums in the developing world. Nearly 1.5 billion people currently live in urban slums without adequate access to health care, clean water and sanitation (BRC 2012). Evidence shows that children living in slums are more likely to suffer from undernutrition, including stunting, than children living elsewhere in the city (Awasthi 2003; Ghosh 2004; Haddad 1999; Hussain 1999; Menon 2001; Pryer 2002; Ruel 1999; Unger 2013) (8).

The chosen community and why it was chosen

The community chosen is Nyarugenge district, *Nyarugenge sector* in the City of Kigali.

District Profile

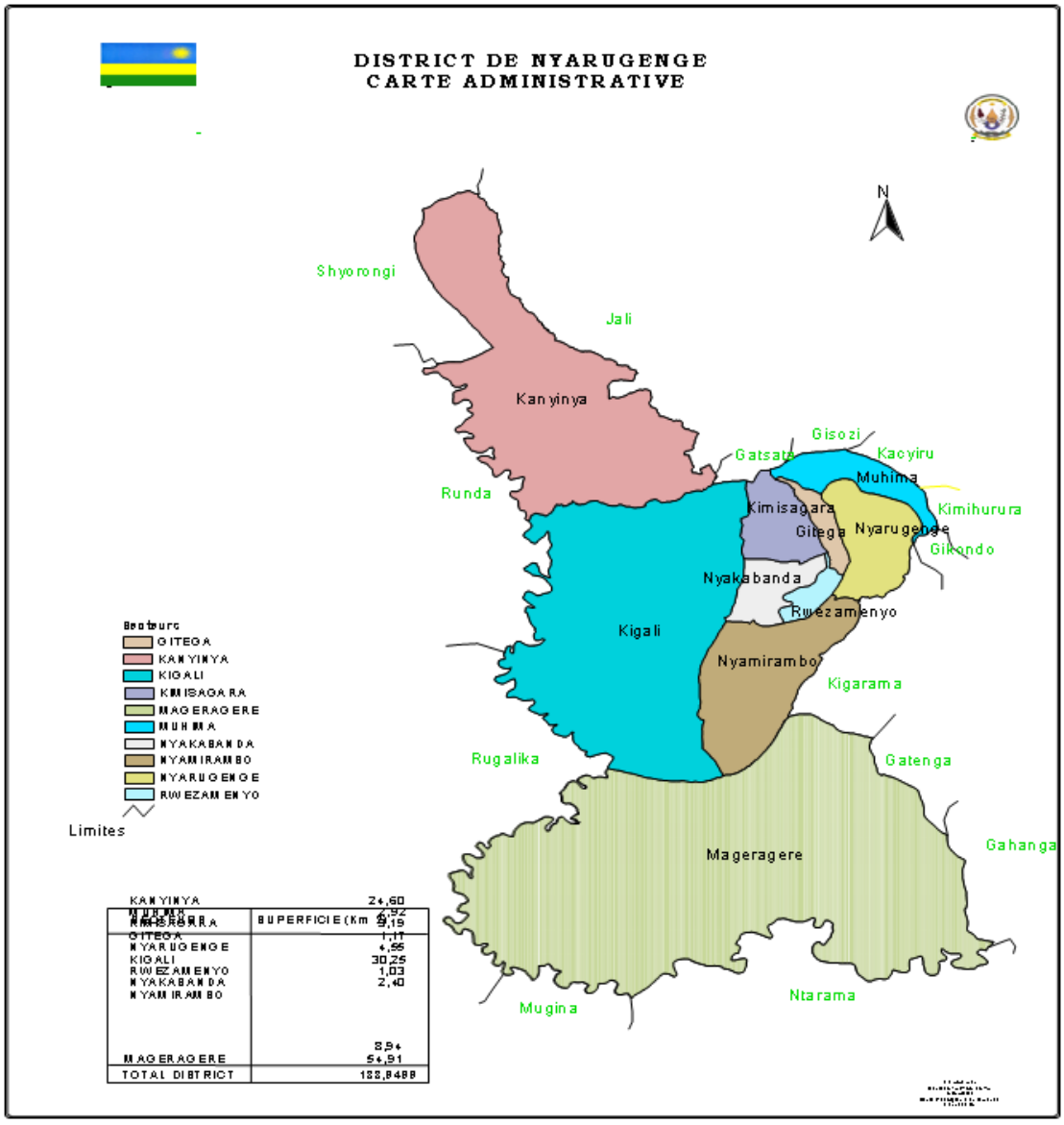
- ***Geographic location***

The District of Nyarugenge is located in the heart of Kigali City, the capital of Rwanda, it is spread over an area of 134 km2 (52 sq. mi, with a density of 2,100/km2 (5,500/sq. mi) and population estimated at 284,561, according to the 2012 census.

The District of Nyarugenge is boarded to the South by the district of Bugesera, North by the district of Rulindo; East by the districts of Gasabo et Kicukiro and West by Kamonyi district. The district is divided into 10 sectors (*imirenge*): Gitega, Kanyinya, Kigali, Kimisagara, Mageragere, Muhima, Nyakabanda, Nyamirambo, Nyarugenge, and Rwezamenyo. In Nyarugenge district, the population is predominantly urban: 75.2% of the resident population (284,561 inhabitants) lives in urban areas

vs. 24.8% in rural areas. In Nyarugenge district; Kanyinya (100%), Kigali (84.2%) and Mageragere (100%) are the only sectors having a share of population living in Rural areas(12).

Figure 1: New administrative Map of Nyarugenge District



Among the 10 sectors, Nyarugenge sector/Nyiranuma Health Center was chosen as community of our field work. It was chosen not because of its high stunting in Rwanda, but due to limited financial resources and time.

Nutritional status of children under age 5 is an important measure of children's health and growth. The anthropometric data on height and weight collected in the 2014-15 RDHS permit the measurement and evaluation of the nutritional status of young children in Rwanda.

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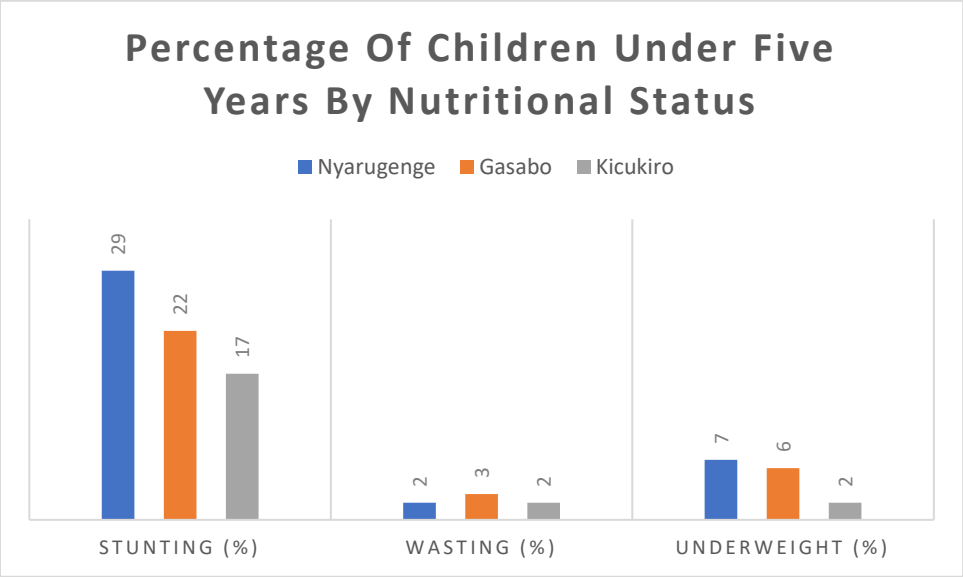
City of Kigali level, 23 percent of children under age 5 are stunted (too short for their age), while this percentage is 38 percent at the national level. Variation in children's nutritional status by district is quite evident, with stunting being highest in ***Nyarugenge (29 percent)***, followed by Gasabo (22 percent) and lowest in Kicukiro (17 percent)(13).

Figure 2: Percentage of children under five years by Nutritional status



Brief description of Socio-medical Centre of Biryogo

Socio- Medical Centre of Biryogo is located in Kigali City, Nyarugenge District, Nyarugenge Sector, Biryogo Cell and Nyiranuma Village. It is commonly known as "*Kwa Nyiranuma*". It is an approved Catholic Church health center. The geographic and social position of Socio-medical Centre of Biryogo has motivated the existence of different services. The Sector strongly hosts all segments of the population carpentry, drivers, servants with low income and so on. Biryogo also hosts a lot of young women who are sexual workers.

Socio-Medical Centre of Biryogo opened in 1973, with only clinic services. It was providing consultation services, STIs (Sexually Transmitted Infections) health care, laboratory services,

monitoring of tuberculosis infected patients, ANC (Antenatal Consultation, FP (Family Planning) and Pharmacy. It serves 28,116 people from 2 sectors Nyarugenge and Rwezamenyo) living in 36 villages. It works with 108 Community Health Workers, 72 Binomes and 36 ASM who intervene in all maternal and child health related issues at community/village level.

Currently, the health center offers the following services:

1. **Preventive services**: Antenatal consultation, Nutrition, Growth follow up, Immunization, Natural family planning and those related to HIV: VCT and PMTCT.
2. **Curative services**: Outpatient department consultation, clinical IMCI and hospitalization, maternity, minor surgery, injection, management of client with Tuberculosis, HIV related treatment.
3. **Laboratory services**: including laboratory testing such as Malaria, TB related lab test, urinalysis, stool exam and HIV related lab test: HIV lab test and Dry Blood Spot (DBS).
4. **Community health activities**: Community case management, Community based program: Community Program based of Nutrition and Maternal and Childhood Health
5. **Other services**: Hygiene and Sanitation, Diseases control, Accounting and Health Insurance (Mutuelle de santé).

The work objectives

- Identify health priority problem in the chosen community
- Develop an interventional project to address the identified problem
- Develop an action plan and the monitoring process for the developed interventional project

METHODS

Need assessment methods

On 10th August 2018, our group composed by two students (Umulisa Olive and Uwera Kamanzi Odette) conducted a need assessment in Nyarugenge district.

Since the need assessment was to use the qualitative method, we developed two interview guides for Key Informant interview and Focus Group Discussion for data collection, in addition to consent forms.

Two health professionals were identified as Key Informants. They included the Director of health at Nyarugenge District and the Head of Centre Socio-Medical of Biryogo (Nyiranuma).

Moreover, one focus group discussion was conducted with 8 Community Health Workers operating in the catchment area of the "Centre Medico-Social de Biryogo (Kwa Nyiranuma)".

Stakeholder analysis methods

"Stakeholders" are people affected by the impact of an activity, people who can influence the impact of an activity. Stakeholders can be individuals, groups, a community or an institution. Stakeholder groups are made up of people who share a common interest, such as an NGO, church leaders and the community. However, such groups often contain many sub-groups(1).

Stakeholder table

The primary stakeholders and secondary stakeholders of the project have been identified. The interests of each stakeholder in relation to the project were identified. The likely impact of the project on each stakeholder's interests was determined. This will enable us to know how to approach the different stakeholders throughout the course of the project. The priority that the project should give to each stakeholder in meeting their interests was indicated. Using the scale 1 to 5, where 1 is the highest priority(1).

Table showing influence and importance of stakeholders

Some stakeholders will have more influence on the project than others. While some are in a position to influence the project so that it is successful, there might be others who feel threatened by it. The table combines the influence and importance of stakeholders so that we can see their position in relation to each other, their influence and importance(1).

Process of intervention selection (considered factors)

- Identify the community problem/goal to be addressed and what needs to be done
- Assess the level of the problem or goal. Some types of assessment
- Describe the prioritized groups to benefit and those implementing the
- intervention.
- Indicate how you will obtain clients' input, identifying and analyzing problems and goals to be addressed by the intervention.
- Analyze the problem or goal to be addressed by the intervention.
- Set goals and objectives for what "success" would look like.
- Identify and assess "best practices" or "evidence-based interventions" that could help address the problem or goal.
- (Based on the assessment and literature) Specify the core components and elements of the intervention.
- Identify the mode of delivery through which each component and element of the intervention will be delivered in the community (e.g., workshops for skill training).
- Indicate how you will adapt the intervention or "best practice" to fit the needs and context of your community (e.g., differences in resources, cultural values, competence, language).
- Develop an action plan for the intervention.
- Pilot-test the intervention on a small scale
- Implement the intervention, and monitor and evaluate the process (e.g., quality of implementation, satisfaction) and outcomes (e.g., attainment of objectives)

PROJECT IMPLEMENTATION PLAN

Results of need assessment

- ***Introduction***

Through in class courses and practical works acquired through the following modules: Health context, Public Health Priorities Interventions, Health policy and planning, Health and communication, We, as MPH students were prepared to work professionally in a variety of public health settings. To achieve this, during the field placement II, we integrated and synthetized our knowledge and through the application of the four modules contents and principles to develop a nutrition project which intend to reduce stunting in Nyarugenge district.

- ***Purpose***

The main objective of the need assessment was exploring and understanding what the situation and the perception around malnutrition in Nyarugenge District is, in order to design an intervention for behavioral health and health promotion through stunting reduction.

a. Health problems

The main problems that face Nyarugenge District are Acute Respiratory Infection (ARI), Non-Communicable Diseases (NCDs), Malaria, skin diseases, diarrhea, gynecological problems, Oto-Rhino-laryngology (ORL) diseases, gastro duodenal problems, accidents and malnutrition of under five children. The top three health problems are ARI, NCDs and Malaria.

For the Centre Socio-Medical of Biryogo the population of its catchment area faces the following main health problems: ARI, gynecological problems, skin diseases, gastro duodenal problems, Malaria, urinary infection, flu syndrome, abscesses, ear infection and malnutrition of under five children. The top three health problems are ARI, gynecological problems, skin diseases.

1. Situation and perception of malnutrition of under five years children

2.1 Stunting rate

The problem of malnutrition is still existing in Nyarugenge District. The rate of stunting at District level is 29%. The Centre Socio-Medical of Biryogo the underweight and wasting rate among under 5 years declined from 12% before 2018 to 10% currently due to the strategies undertaken at different levels and the interventions of different partners.

1.2 . Existing resources

The problem of stunting is a public health problem and it is among the priority of Nyarugenge District. There are some activities implemented for reduction of stunting:

- Creation of Income Generating Activity (IGA) in order to fight against poverty
- Facilitation the registration
- Reduction of taxes
- Providing livestock
- Providing vegetable seeds and fruits

On the side of the Centre Socio-Medical of Biryogo through the vaccination and the growth monitoring done in the community the malnourished children with severe status are identified and monitored at Health center. There are educational lessons given to the mothers of malnourished children and some cooking demonstrations are done every day for promoting the preparation of balanced diet for children.

The existing resources are not enough reason why some partners intervene in this area of reduction of malnutrition and at community level.

1.3 External resources needed

The need was identified by the Community Health Workers of the sensitization of the population at different level on fighting against malnutrition and the need of providing weighing scale for using in growth monitoring at village level.

1.4 Challenges in fighting against malnutrition

- Mobility of some families handicaps the follow-up of the monitoring growth of their children

- The existing resources of the District are not enough at 100% for fighting against malnutrition
- There are some parents who don't attend the nutritional sessions organized at village level
- Monthly screening is not done at 100% they are some children who are not reached
- There are some children who have some diseases associated to malnutrition who don't have the community health-based insurance and others their category is not known
- Some families don't have the capacity to overcome the malnutrition of their children
- Other families have the capacity to overcome the malnutrition of their children, but they don't take care of the nutrition of the children. Their mindset is a problem.

  As said by one CHW "***There are some mothers who are ashamed to see their children being malnourished because they miss anything and consider that as a big issue for the poor"***
- Some materials of growth monitoring are missing e.g. weighing scales

1.5 Strategies to overcome malnutrition

1. Build the capacity of Nyarugenge district to coordinate and monitor scaling-up of multi-sectoral community-based nutrition-specific and nutrition-sensitive interventions in targeted districts;
2. Build the capacity of pupils in primary and secondary schools and youth in the age of marriage to prevent under-nutrition among future generation
3. Build capacity of key service providers to prevent, identify and manage under-nutrition among children under-five and pregnant and lactating women;
4. Support social and behavior change activities at community level for improved maternal and child feeding practices in targeted districts;
5. Improve food security and resilience of vulnerable targeted households with children under two and pregnant and lactating women in targeted districts
6. Advocacy for government regulations and support to stabilize families in the context of limiting families' mobility
7. Advocate for strengthening nutrition program into primary and secondary schools' curricula

1.6.Partners who work in health domain

Partners	Area of intervention
MINISANTE	Nutrition: Provide Ready to Use Therapeutic Food (RUTF) for rehabilitation of malnourished children
	Training of nutritionist, Charged of health at community level and CHWs
AEE	Mobilization around nutrition and assistance to vulnerable
Croix Rouge	
FBOs	
We Act	HIV/AIDS
SFH	
AHF	
MSH	HMIS and Decentralization
JHPIEGO	
CRS through GIKURIRO Project	Nutrition: Training of CHW and fathers model" Papa Lumiere" and mothers models "Maman Lumiere" on nutrition. One CHW said: "***The training of mothers model is big support in our work*****".**
	Provided kitchen materials and other materials to use in village nutritional schools
	Training agriculture volunteers for helping in making kitchen gardens
	Provide vitamins and minerals to malnourished children
Local Development Agency(LODA)	Provide milk to malnourished children in nutritional school at Centre Socio-Medical of Biryogo.

Results of intervention selection

According to the 2014-15 RDHS Chartbook/Kigali City, the problem of children's nutritional status in Nyarugenge district is quite evident, with stunting being highest in Nyarugenge (29 percent)(2).

In addition, based on the need assessment conducted, the Nyarugenge district face multiple challenges to fight against all forms of malnutrition especially stunting including:

- The existing resources of the District are not enough at 100% for fighting against malnutrition
- There are some parents who don't attend the nutritional sessions organized at village level
- Monthly screening is not done at 100% they are some children who are not reached
- There are some children who have some diseases associated to malnutrition who don't have the community health-based insurance and for others their Ubudehe category is not known
- Some families are food insecure to prevent malnutrition for their children
- Other families have the capacity to overcome the malnutrition of their children, but they don't know how take care of their children's adequate nutrition. Their mindset is a problem.
- As said by one of the CHWs **"*There are some mothers who are ashamed to see their children being malnourished while they have everything and consider that malnutrition should be a big issue for the poor*"**
- Some materials of growth monitoring are not enough, e.g. weighing scales

Based on the above challenges, the intervention selected is "Accelerating the stunting reduction" and will focus on the multisectoral approach through Advocacy, Capacity building for health providers and CHWs to prevent, identify, and manage undernutrition among children under-five and pregnant and lactating women, Social and behavior change activities at community level for improved maternal and child feeding practices, Improve food security and resilience for vulnerable households with children under two and pregnant and lactating women.

Results of stakeholder assessment

Stakeholder table

Stakeholders can be divided into two main types:

- **Primary Stakeholders** who benefit from, or are adversely affected by, an activity. This term describes people whose well-being may be dependent on a resource or service or area that the project addresses.
- **Secondary Stakeholders** include all other people and institutions with an interest in the resources or area being considered. They are the means by which project objectives can be met, rather than an end in themselves(1).

STAKEHOLDERS	INTERESTS	LIKELY IMPACT OF THE PROJECT	PRIORITY
PRIMARY			
Nyarugenge community	Better health	+	1
Families	Better health	+	1
Children	Better health	+	1
SECONDARY			
CHW	Reduced workload	+	2
	Achievement of objectives	+	
	Income	-	
Local churches (e.g AEE)	Involvement of members in the project	+	3
FBOs	Involvement in the project	+	3

Croix Rouge	Achievement of objectives	+	3
CRS (GIKURIRO)	Achievement of objectives	+	1
Local leaders	Achievement of objectives/ targets	+	2
We act	Better health	+	4
SFH	Better health	+	4
AHF	Better health	+	4
MSH	Better health	+	4
JHPIEGO	Better health	+	4
LODA	Achievement of objectives	+	3
MINISANTE	Achievement of objectives and targets	+	2

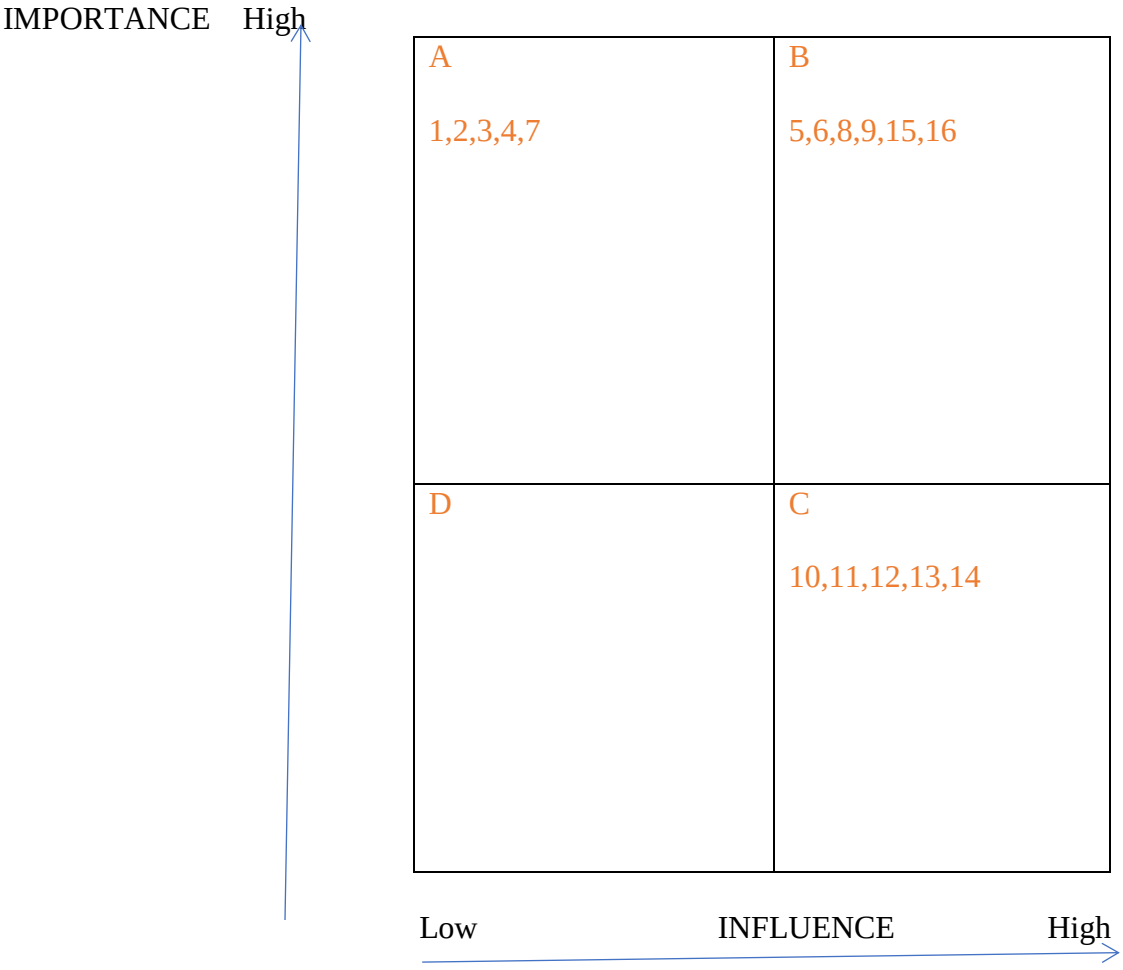
+ Potential positive impact on interest

− Potential negative impact on interest

Table showing influence and importance of stakeholders

INFLUENCE is the power that stakeholders have over the project.

IMPORTANCE is the priority given by the project to satisfying the needs and interests of each stakeholder(1).



Primary stakeholders

1. Nyarugenge community
2. Families
3. Children

Secondary stakeholders

4. CHW
5. Local churches
6. FBOs
7. Croix Rouges
8. CRS (Gikuriro)
9. Local leaders
10. We act
11. SFH
12. AHF
13. MSH
14. JHPIEGO
15. LODA
16. MINISANTE

The table can be analyzed as follows:

Boxes A, B and C are the key stakeholders of the project**.** They can significantly influence the project or are most important if project objectives are to be met.

BOX A Stakeholders of high importance to the project, but with low influence. They need special initiatives to ensure their interests are protected.

BOX B Stakeholders of high importance to the project, who can also influence its success.
It is important to develop good working relationships with these stakeholders to ensure adequate support for the project.

BOX C Stakeholders with high influence who can affect the project impact, but whose interests are not the target of the project. These stakeholders may be a source of risk.
Relationships with these stakeholders are important and will need careful monitoring.
These stakeholders may be able to cause problems for the project and it may be too risky to go ahead with the project at all.

BOX D Stakeholders of low priority but who may need limited monitoring and evaluation to check that they have not become high priority(1).

Description of the interventional project

Overall Project Goal:

Contribute to the prevention and reduction of stunting through improved nutrition, growth and cognitive development

Project Objectives:

The objective of this project is to contribute to national overall goal of *preventing* and *reducing stunting rates* among children under five years of age in Nyarugenge district the Early Childhood Development Program Coordination model to implement nutrition activities from the national to decentralized levels, as stated in the July 2018 – June 2024 Health Sector Strategic Plan (HSSP IV).

Specifically, this project will:

i. Reinforce the Nyarugenge district coordination and monitoring of the scaling-up of multi-sectoral community-based nutrition-specific and nutrition-sensitive interventions in the district;

i. Improve the functionality of the M&E system to track the implementation of evidence-based District Plan to Eliminate Malnutrition (DPEM) interventions and their contribution to the reduction of child stunting

ii. Build the capacity of key service providers to prevent, identify and manage under-nutrition among children under-five and pregnant and lactating women;

iii. Support social and behavior change activities at community level for improved maternal and child feeding practices, and through ECD services within the district.

iv. Improve food security and resilience of vulnerable targeted households with children under two and pregnant and lactating women in targeted districts

Project expected results

ii. Multisectoral of districts coordination mechanisms to coordinate and monitor scaling-up of multi-sectoral community-based nutrition-specific and nutrition-sensitive interventions in targeted district;
iii. The decentralized system has the capacity to prevent, identify and manage under-nutrition among children under-five and pregnant and lactating women;
iv. Improved functionality of the M+E system to track the implementation of evidence based DPEMs interventions and their contribution to the reduction of child stunting
v. Improved practices of nutrition-related behaviors among target populations (or households) with malnourished children and pregnant and lactating women and those who are at risk are practicing improved nutrition-related behaviors
vi. Improve growth monitoring and promotion with emphasis on accurate malnutrition screening, recording anthropometric results and reporting.
vii. Improve food security and resilience of vulnerable targeted households with children under two and pregnant and lactating women in targeted districts

For improved food security and resilience, we will achieve the above - mentioned objectives by supporting Nyarugenge district to operationalize their "District multi-sectoral Plans for the Elimination of Malnutrition" (DPEMs).

We will use an integrated approach that includes the combination of nutrition, agriculture, and economic strengthening through savings/lending groups to increase household incomes targeting mostly the Ubudehe 1 and 2 categories to increase their income and nutritious food purchasing power. This approach will enable us creating and working with beneficiaries in Farmer Field Schools groups as an entry point to begin a community demonstration plots and creating other groups such as Village Nutrition (VNS) Schools and SILC groups; and taking that learning to their households. Each beneficiary becomes a member of FFLS, VNS and SILC groups and receive comprehensive and full package on bio-intensive agriculture techniques (BIATs), nutrition and hygiene best practices, financial education, creation of IGAs. The replication of household kitchen gardens using BIATs allow beneficiaries and their families to grow more vegetables and diversify their diet all over the year. Participation in the saving groups provides resources for those

participating members to engage in small business and occasionally to cover non-productive costs such as healthcare.

We will build the capacity of relevant nutritionists at district hospital and sector/health center level alongside with district/sector staff, to scale up the implementation of this integrated approach in the target district. This means that the projects activities will be implemented in all villages. Each village represents a project site. Two Community Health Workers will oversee for each site for nutrition activities and will also use the Farmer promoter for Food Security and Economic Strengthening activities. Each village/site will establish a VNS site, where growth monitoring and promotion will be used as a great approach to screen malnutrition cases among children under five years of age. Children identified with acute malnutrition will be referred to Nyarugenge Hospital for nutrition care and treatment, whereas children identified with moderate malnutrition will be referred to village nutrition schools (VNS) to be treated at community level using locally grown foods through cooking demonstrations and child feeding, nutrition and hygiene education sessions will be conducted as well.

Based on the National Early Childhood Development Programme and its strategic plan, through this project proposal intend to focus on 3 pillars: *Health, Agriculture and Social protection*

Selection criteria of the area and beneficiaries

We intend to contribute to the 'reduction of stunting' agenda of the Government of Rwanda in Nyarugenge district among the most affected by chronic malnutrition, poverty and food insecurity.

Rwandan farmers, particularly those in Ubudehe 1 and 2, remain vulnerable to ***food insecurity*** and ***chronic malnutrition*** (stunting) stemming from agriculture constrained by small plot sizes, degraded soils, undiversified diets and traditional farming techniques resulting in lower productivity, persistent malnutrition and continuing poverty. Lack of skills on income generation and access to credit further perpetuate the cycle of poverty. To address these challenges, nutrition activities will be implemented through an integrated approach to address all forms of malnutrition specifically stunting.

Based on these indicators, Nyarugenge was identified among districts with high stunting rate (*29%, RDHS 2014-15, district profile chart book*). Thus, the program will be implemented in collaboration with the district and other stakeholders in the district.

The project will target beneficiaries who are pregnant, lactating mothers and children under two years. Targeted households will be based on the following criteria:

Selection of beneficiaries will be carried out in close collaboration with local authorities, in particular village chiefs. We will organize a joint meeting with local authorities to validate lists of beneficiaries. The enrolment of beneficiaries will be contingent upon the willingness of selected candidates to participate in FFLS, SILC and nutrition specific activities and expression of interest to adopt the improved practices in their own household.

Priorities/Importance of the problem, vulnerability, feasibility of the proposed solution

Given the high stunting rate (29%) in Nyarugenge district as mentioned above, we will focus on the promotion of the first 1000 days of life, a window of opportunity targeting pregnant/lactating women and children below two years. This is a critical period of greatest benefits from nutrition interventions especially as promotion and implementation a set of high impact nutrition interventions offer the greatest opportunity to reverse stunting effects on mental development.
The programme is designed to address the immediate and underlying causes of malnutrition, while at the same time, seeking to address the root causes: poverty, inequality and risk and vulnerability. Underlying causes relate to food insecurity, inadequate maternal and child care practices and poor hygiene and health practices, including access to health care services. These represent three key focus areas for programme intervention:

- ***Increasing access, availability and Diet diversity (utilisation of various nutritious foods)*** will be addressed through a variety of entry points: Farmer Field Learning Schools (FFLS), including bio-fortified crop production using bio-intensive agriculture techniques; Savings and Internal Lending Community Schemes (SILC); and targeted supplementary feeding.
- ***Improving maternal, infant and young child feeding and hygiene behaviours*** will be addressed through training of front line CHWs and health facility staff who will transfer knowledge and encourage positive practices with the target population as well as via Positive Deviance Hearth (PD/H) model; Home Based Early Childhood Development including positive parenting and FFLS.
- ***Increasing access and utilisation of health services*** for the target population will be addressed through training of services providers and providing an enabling environment for better access

to health care services. Through the various social and behaviour change mechanisms highlighted above, it is expected that care-seeking behaviour will be improved. In addition, utilisation (affordability) will be improved as a result of increased income, through the economic strengthening components of the program.

Applying the dietary diversity and balanced diet will enable to reduce stunting among children < 2 years, by using the integrated approach which includes agriculture, economic strengthening and nutrition respectively to increase household food security (availability of production, accessibility and utilization) and economic capacity of target beneficiaries. The 3 pillars of food security integrated will increase the household nutrition by increasing family dietary diversity and consumption. The agriculture and economic strengthening will be completed a by a solid nutrition and health education for a great impact on the improvement of nutrition for vulnerable household with children under two and pregnant and lactating women.

Under the project objectives, the following objectives and activities will be achieved:

Objective 1: Build capacity of districts to coordinate and monitor scaling-up of multi-sectoral community-based nutrition-specific and nutrition-sensitive interventions in targeted district;

Expected Result 1: ***Multi-sectoral coordination mechanisms are functional to reduce stunting including the establishment of a National Steering Committee and District Steering Committees***

This project will support the strengthening of Nyarugenge district multi-sectoral and multi-stakeholder Steering Committee at district level. To work through decentralized structures, District Steering Committees for the Elimination of Malnutrition will be established/strengthened. Nyarugenge District Steering Committee, and the Sub-Commission for the Elimination of Malnutrition will be placed under the Joint Action Development Forum (JADF).

Activities:

Activity 1.1: Develop TORs for coordination mechanisms.

Activity 1.2: Organize quarterly coordination meeting for District Steering Committee

Activity 1.3: Establish a reporting and feedback mechanism

Activity 1.4: Organize joint-monitoring visits at field level

Activity 1.5: Organize an advocacy event for government to establish regulations and mechanisms that help stabilizing families and limiting their mobility

Objective 2: Improve functionality of the M&E system to track the implementation of DPEM interventions and their contribution to the reduction of child stunting

Expected Result 2: ***Improved functionality of the M+E system to track the implementation of evidence based DPEMs interventions and their contribution to the reduction of child stunting***

A monitoring system will be established covering all multi-sectoral interventions established to track all major indicators, plans and activities with respect to the national programme indicators. Information and data will be collected, analyzed and utilized as appropriate at national and decentralized coordination/technical structures. To achieve this, a strong and running growth monitoring and promotion model will be strengthened where all children in Nyarugenge district will be growth monitored/screened at all village growth promotion sites. Children attending will be reported on a monthly basis and their mothers/caretakers who receive nutrition education and counseling will also be reported.

Activities

Activity 2.1: Establish functional monitoring and evaluation system including reporting mechanisms

Activity 2.2: Ensure the development/updating M&E tools.

Activity 2.3: Build capacity of decentralized structures to monitor coordinated multisectoral interventions.

Activity 2.4: Organize annual workshops to share lessons learned and best practices**,** challenges and propose solutions

Objective 3: Build capacity of decentralized system to prevent, identify and manage undernutrition among children under five years, pregnant women and lactating women

Expected result 3: ***The decentralized system has the capacity to prevent, identify, and manage undernutrition among children under-five and pregnant and lactating women***

The activities are specifically related to the capacity building of health providers in terms of training, supervision and provision of tools and equipment to adequately manage malnutrition according to the national nutrition protocol, community-based nutrition programme (CBNP), Maternal, Infant and Young Child Nutrition and Positive Deviance Hearth (PD/H) methodology. These cover direct, **nutrition-specific** interventions and will be complemented by the **nutrition-sensitive** (agriculture and SILC) based activities.

Activities:

Activity 3.1: Identification of children under five (active/at risk cases) of undernourished through monthly growth monitoring and promotion sessions by CHW, including MUAC screening of pregnant women.

Activity 3.2: Conduct relevant trainings for service providers**.**

Activity 3.3: Establish/strengthen the provision of monthly supportive supervision visits to the village level

Activity 3.4: Assess, procure, and distribute training materials, cooking demonstration materials, tools and supplies necessary for CBNP at the community and health center levels.

Activity 3.5: Support delivery of quality outpatient services in the health centers and delivery of quality in-patient services in the district hospitals.

Objective 4: Promote social and behavior change at community level for improved maternal, Infant and Young Child feeding practices in Nyarugenge district

Expected Result 4: ***Improved practices of nutrition-related behaviors among target populations (or households) with malnourished children and pregnant and lactating women and those who are at risk are practicing improved nutrition-related behaviors.***

The national 1000 Days Social and Behaviour Change Communication (SBCC)) Initiative will support the development of various audience targeted SBCC kits and materials for use at decentralized level adapted to the local context. Nyarugenge district and its partners will coordinate and manage implementation of SBCC related approaches and interventions and ensure that each household is reached with messages on the importance of adopting optimal maternal and infant/young child nutrition practices especially during the 1000 days' window of opportunity for improved nutritional outcomes.

Activities

Activity 4.1: Organize sensitization meetings with district and sector-level authorities and partners (CSO/FBO, Administrative Authorities, local leader).

Activity 4.2: Organize an orientation session on nutrition of community-level frontline staff (CHWs, EHO, Education Focal Points among others).

Activity 4.3: Organize a Media Orientation Workshop for the District and Sector Level Media campaign with Community Radio.

Activity 4.4: Sensitize male partners and youth, including women of reproductive age, in schools and in the community, on the importance of 1,000 days and Early Childhood development practices

Activity 4.5. Sensitize Youth (at marriage age) on Essential Nutrition Actions

Activity 4.6. Reinforce capacity of community based ECD providers and mothers through nutrition and hygiene promotion as well as positive parenting

Objective 5: Improve food security and resilience for vulnerable households with children under two and pregnant and lactating women

Expected Result 5: ***Improved food security and resilience for vulnerable households with children under two and pregnant and lactating women***

Activities:

Activity 5.1: Identify available foods (local food production.) – for Dietary Diversification

Activity 5.2.: Establishment and training of farmer field learning schools (FFLS) groups

Activity 5.3: Provide inputs to FFLS including seeds and small livestock for kitchen gardens in targeted households.

Activity 5.4: Provision of skills on bio-fortified crop production.

Activity 5. 5: Creation, training and monitoring of savings and lending groups.

These nutrition sensitive food security interventions include agriculture focused activities which seek to integrate agriculture-nutrition interventions to translate increased production into increased household diet diversity and consumption as well as social cohesion ensuring access to nutritious food to targeted populations (children under 2 and pregnant and lactating women in those households under Ubudehe category 1 and 2). This project will use the farmer field learning school (FFLS) as an entry point for the nutrition sensitive agriculture focus activities.

The economic strengthening component will focus on developing a culture of savings through the establishment and training of saving and lending groups (SILC). SILC provides households with access to financial resources and services, to improve their food security, and serves as a social protection mechanism to boost resilience to shocks. Those extreme poor, without labour capacity, will be referred to social protection services, where they exist.

CONCLUSION

According to the latest estimates for 2016, rates of stunting among children are on the decline worldwide but remain very high in most parts of Africa. Globally, the prevalence of stunting fell from 29.5 percent to 22.9 percent between 2005 and 2016(3).

The magnitude of stunting in Africa is found as one of the highest in the world and the trend shows stagnating rather than progress (7).
Nationally, 38 percent of children under age 5 are stunted, and 14 percent are severely stunted(10). Past studies have shown that economic status, place of residence, education of the mother, age of the mother, occupation of the mother, source of water, availability of latrine, child morbidity, sex of the child, age of the child, method of feeding, age of initiation of complementary feeding, birth interval of the child, total number of children ever born to the mother, and maternal nutritional status were factors associated with undernutrition among under-five children (11).

The community chosen for designing an intervention is Nyarugenge district, *Nyarugenge sector* in the City of Kigali and we focused on socio medical Centre of Biryogo. Nyarugenge District was chosen because its high stunting rate in Kigali City.

The work objectives were identified health priority problem in the chosen community, develop an interventional project to address the identified problem, develop an action plan and the monitoring process for the developed interventional project.

The qualitative method was used to collect data through 2 key informant interviews with the Director of health at Nyarugenge District and the Head of Centre Socio-Medical of Biryogo (Nyiranuma and one focus group with 8 CHWs operating in its catchment area.

The methods used for stakeholder analysis are stakeholder table and table showing influence and importance of stakeholders. Through the stakeholder table the primary and secondary stakeholders were identified, and they were categorized by the table showing their influence and importance.

The factors considered in the process of intervention selection were identified: Identify the community problem/goal to be addressed and what needs to be done, assess the level of the problem or goal, describe the prioritized groups to benefit and those implementing the intervention, indicate how you will obtain clients' input, identifying and analyzing problems and goals to be addressed by the intervention etc.

According to the need assessment, the main objective of the need assessment was exploring and understanding what the situation and the perception around malnutrition in Nyarugenge District is, in order to design an intervention for behavioral health and health promotion through stunting reduction.

The results of need assessment focused on health problems**,** stunting rate, existing resources, external resources needed, challenges in fighting against malnutrition, strategies to overcome malnutrition and partners who work in health domain with Nyarugenge District and Socio-Medical Centre of Biryogo.

The project designed is "**Accelerating Stunting Reduction in Nyarugenge District**" and has three components: Agriculture, Nutrition and Early Child Development services and Economic Strengthening.

The Project Goal is the following: Contribute to the reduction of stunting through improved nutrition, growth and cognitive development.

As added value the project will focus on *advocacy*, *capacity building* and *behaviour change communication* to the community to demonstrate how Nyarugenge district and its population should consider malnutrition as a public health problem that need to be prioritized at different levels in order to address it effectively.

To be successful, governments should consider stunting as a serious issue and put special emphasis on creating policies in line with research findings conducted by considering the cultural beliefs and socio-cultural realities of target implementation sites. They should also be committed to combat stunting, implementing programmes and placing systems by considering it

as the main agenda on the fight against poverty and a fundamental driver of a wide range of developmental goal (7)

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APPENDICES

DATA COLLECTION TOOLS

Key informants' interview guide

Interview with the head of the Health center

1. What are the main health problems do you receive in your health center?
2. Among those problems what is the top 3 health problems on the list? Which one would you prioritize?
3. How do you perceive malnutrition issues in your health center's catchment area?
    a. Do you think stunting among children under five years is a public health problem?
    b. What is the status of stunting in your catchment area?
    c. If it is a health problem priority, what is needed to address this issue?
    d. What are the existing resources at your health center? What is needed (you don't have) to improve the situation? Are those existing resources enough?
4. If not, what are the external resources do you need?
5. What are other challenges do you face?
6. What are your suggestions to overcome them?
7. What are the partners do you work together in health domain? In which area are they supporting you and how?

Interview with the charged of health department at Nyarugenge District

1. What are the main health problems do you face in your district?
2. Among those problems what is the top health problem on the list? What are the top 3 health priorities in your district?
3. How do you perceive malnutrition issues in your district?
    a. Do you think stunting among children under five years is a public health problem in your district?
    b. What is the status of stunting in your district?
4. If it is a health problem priority, what is the district needs to address this issue?
    a. What are the existing resources in your district?
    b. Are those existing resources enough?
    c. What is needed (you don't have) to improve the situation?
    d. If not, what are the external resources do you need?
5. What are other challenges do you face?
6. What are your suggestions to reduce the stunting rate in your district?
7. What are the partners do you work together in health domain? In which area are they supporting you and how?

Focus Group Discussions guide

Discussion with Community Health Workers

1. What are the main health problems in your health center's catchment area?
2. Among those problems what is the top health problem on the list? What would you prioritize?
3. How do you perceive malnutrition issues in your health center's catchment area?
    a. Do you think stunting among children under five years is an important public health problem?
    b. What is the status of stunting in your catchment area?
4. If stunting is a health problem priority:
    a. What are the existing resources in the community?
    b. what do you think is needed to address this issue?
    c. Are those existing resources enough? If not, what are the external resources do you need?
5. What are other challenges do you face in addressing malnutrition in the community?
6. What is the attitude or behavior of your community members around nutrition practices?
7. What are your suggestions to overcome stunting in your community?
8. What are the partners do you work together in health domain?
    a. In which area are they supporting your community?
    b. How their interventions are they contributing enough to reduce stunting?
    c. If not, what is missing?

Consent Forms

KEY INFORMANT INTERVIEW GUIDE: DISTRICT HEALTH DIRECTOR/ HEAD OF CENTER STAFF

Interviewer's name: ***Olive UMULISA*** *and here is my colleague* ***Odette U. KAMANZI***

We are students at the University of Rwanda/School of Public Health.

Introduction: *Thank you for agreeing to speak to me today. We are conducting a research to help get a clear picture of the situation and perception of malnutrition in your district/community. We are interested in learning from your experience and understanding your thoughts on this issue will help us to design an intervention for reduction of stunting.*

I will take notes so that, I can remember all your important comments, but your name or personal details will not be attached to the ideas/comments you share with me. You can end the interview at any time or ignore questions you do not want to answer.

Do you have questions for me?

Are you ready to participate in this interview?

Can we start by sharing your name, the name of your organization and your role?

Name: _____

Organization_____Title_____

Signature_____

1. Consent Form

Focus Group Discussions (FGD)

*Hello everyone, my name is **Olive UMULISA** and here is my colleague **Odette U. KAMANZI***

We are students at the University of Rwanda/School of Public Health. We are conducting a research to help get a clear picture of the situation and perception of malnutrition in your community. We are interested in learning from your experience and understanding your thoughts on this issue will help us to design an intervention for reduction of stunting. The opinions you share with us today will help us improve the nutrition and health of your community.

Thank you for agreeing to participate in group discussions today. I will ask the group a question and then facilitate sharing your opinions on the subject. We are not here to give our opinion, but we are only interested in hearing yours. There are no good or bad answers; You may agree or disagree with the points others make, or even change your ideas during the discussion. We hope you feel comfortable sharing your experiences and perceptions and talking honestly about how you feel.

We hope to hear everyone. My colleague will be recording our discussion today so that we can remember all the opinions that are being discussed and not miss important ideas. However, I would like to reassure everyone that this group discussion is confidential; no one outside the group will know who was told what, and your name will not be attached to comments you might make during our discussion.

Do not hesitate to answer a question. You do not have to wait to be called, but please allow the speaker to finish his or her thoughts before starting to speak. It will be much easier to follow the discussion if only one person speaks at a time. Please be respectful of all points of view and remember not to share everything that is said today with others.

Your participation in the group is entirely your choice, and you can choose not to answer a question, or to stop participating and leaving the group at any time, without consequence for you.

Does anyone have questions?

Are you ready to participate in this research? (Do you ensure the verbal consent of all participants)

So that we all know each other, can we start by going around the circle and sharing your name?

Thank you

Operational plan

Activity	(Oct-Dec)			(Jan-Mar)			(Apr-Jun)			(Jul-Sept)			Responsible
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	
COMPONENT1: Capacity building of districts to coordinate and monitor scaling-up of multisectoral community-based nutrition-specific and nutrition-sensitive interventions in targeted districts;													
Output 1.1. **Improved multi-sectoral planning and coordination mechanisms at all decentralized levels in Nyarugenge Districts**													
Activity 1.1: Develop Terms of References (ToR) for coordination mechanism													Project staff+District
Activity 1.2: Organize quarterly coordination meeting for District Steering Committee													District+ Project staff
Activity 1. 3: Organize monthly coordination meetings for National Nutrition Technical Committee and the District Sub-Commission for the Elimination of Malnutrition.													District+ + Project staff
Activity 1. 4: Establish a reporting and feedback mechanism.													District+ Project staff
Activity 1. 5: Organize joint-monitoring visits at field level													District+ Project staff
Component 2: Capacity building of key service providers to prevent, identify and manage under-nutrition among children under-five and pregnant and lactating women;													
Output 2.2: Improved functionality of the M+E system to track the implementation of evidence based DPEMs interventions and their contribution to the reduction of child stunting													
2.1: Establish functional monitoring and evaluation system including reporting mechanisms.													District+ Project staff
2.2: Ensure developing/ updating M&E tools.													District and Health facilities staff + Project staff

2. 3: Build capacity of decentralized structures to monitor coordinated multisectoral interventions.													District and Health facilities staff + Project staff
2. 4: Organize annual workshops to share lessons learned and best practices													Project+district staff
Component 3: Capacity building of decentralized health system													
Output 3: The decentralized health system has the capacity to prevent, identify, and manage undernutrition among children under-five and pregnant and lactating women													
3.1: Identify children under five (active/at risk cases) of undernourished through monthly growth monitoring and promotion sessions by CHW, including MUAC screening of pregnant women.													CHWs under supervision of District and Health facilities staff + Project staff
3.3: Conduct relevant trainings for service providers and caregivers**.**													District and Health facilities staff + Project staff
3.4: Establish/strengthen the provision of monthly supportive supervision visits to the village level.													District and Health facilities staff + Project staff
3.5: Assess, procure, and distribute training materials, cooking demonstration materials, tools and supplies necessary for Community Based Nutrition and ECD services at the community level													Project staff+Health centers/CHWs
3.6: Support delivery of quality outpatient services in the health centers and delivery of quality in-patient services in the district hospitals (In-service training).													Project staff
Component 4: Social and behavior change activities at community level for improved maternal and child feeding practices in targeted districts;													
Output 4: Leaders and community members are equipped with the knowledge and skills necessary to practice and promote appropriate health and nutrition behaviors in their own households and with their communities													

4.1. Organize sensitization meetings with district and sector-level authorities and partners (CSO/FBO, Administrative Authorities, local leader.													Project staff+District
4. 2. Organize an orientation session on nutrition of community-level frontline staff (CHWs, EHO, Education Focal Points among others).													Project staff+District
4.3. Organize a Media Orientation Workshop for the District and Sector Level Media campaign with Community Radio.													Project staff+District
4.4. Sensitize male partners and youth, including women of reproductive age, in schools and in the community, on the importance of 1,000 days and Early Childhood development practices through radio program.													Project staff+District
4.5. Sensitize Youth (at marriage age) on Essential Nutrition Actions													Project staff+District
4.6: Reinforce capacity of community based ECD providers and mothers through nutrition and hygiene promotion as well as positive parenting													Project staff+District
Component 5: Improved food security and resilience for vulnerable households with children under two and pregnant and lactating women													
Output 5. Food security and nutrition among children under two and pregnant and lactating women in targeted households are improved in Nyarugenge districts													
5.1: Identify available foods (local food production.) – for Dietary Diversification (and look if there is gap in solving nutrition needs. – food diversification (DDS)													Project staff+District and Sector agronomist
5.2.: Establishment and training of farmer field learning schools (FFLS) groups.													Project staff+District and Sector agronomist
5. 3: Provide inputs to FFLS including seeds and small livestock for kitchen gardens in targeted households.													Project staff+District and Sector agronomist
5. 4: Provision of skills on bio-fortified crop production.													Project staff+District

													and Sector agronomist
5. 5: Creation, training and monitoring of savings and lending groups.													Project staff+District and Sector cooperative officer

Logical Framework

Project Name: **Accelerating Prevention and Reduction of Stunting Among Under Five Children in *Nyarugenge District***		
OBJECTIVES	**INDICATORS**	**MEANS OF VERIFICATION**
Goal: To contribute to the reduction of stunting rates of children less than 5 years-old in Nyarugenge District		
Outcome/Objective 1: Strengthening capacity of district to coordinate and monitor scaling-up of multi-sectoral community-based nutrition-specific and nutrition-sensitive interventions in targeted district population		
Output/Expected Result 1: Multi-sectoral coordination mechanisms are functional to reduce stunting including the establishment of a District Steering Committees (ECD committee) – in collaboration with the NECDP		
Activities (for Output/ER 1.1):		
Activity 1.1: Develop TORs for coordinating mechanisms	# of ToRs developed and validated	Field visit report,
Activity 1.2: Organize quarterly coordination meeting for District Steering Committee.	# of meetings held at decentralised levels	Minutes of meetings
Activity 1. 3: Organize monthly coordination meetings for National Nutrition Technical Committee and the District Sub-Commission for the Elimination of Malnutrition.	# of meetings held at national and decentralised levels	Minutes of meetings
Activity 1. 4: Establish a reporting and feedback mechanism.	Reporting and feedback mechanisms established	Reporting tools developed
Activity 1. 5: Organize joint-monitoring visits at field level	# of joint-monitoring visits	Field visit report
Outcome/Objective 2: Improve functionality of the M&E system to track the implementation of DPEM interventions and their contribution to the reduction of child stunting		
Output/Expected Result 2: Improved functionality of the M+E system to track the implementation of evidence based DPEMs interventions and their contribution to the reduction of child stunting.		
Activities (for Output/ER 2.):		
2.1: Establish functional monitoring and evaluation system including reporting mechanisms.	functional monitoring and evaluation reporting mechanisms through national HMIS	Field visit reports
2.2: Ensure developing/ updating M&E tools.	M&E tools developed	
2. 3: Build capacity of decentralized structures to monitor coordinated multisectoral interventions.	# of M&E district staff trained and coached	Training report, evaluation forms

	# of trained CHWs regularly reporting using RapidSMS	RapidSMS records from Hospital/HC,
2. 4: Organize annual workshops to share lessons learned and best practices	# of workshop organized	Workshop reports
Outcome/Objective 3: Build capacity of decentralized structures to monitor coordinated multisectoral interventions.		
Output / Expected Result –ER 3: The decentralized system has the capacity to prevent, identify, and manage undernutrition among children under-five and pregnant and lactating women.		
Activities (for Output/ER 3):		
3.1: Identify children under five (active/at risk cases) of undernourished through monthly growth monitoring and promotion sessions by CHW, including MUAC screening of pregnant women.	# of children under five reached with nutrition growth promotion services % of pregnant and lactating women reached.	Monthly, quarterly and annual reports
3.3: Conduct relevant trainings for service providers and caregivers**.**	# service providers trained (per category)	Training records/reports
3.4: Establish/strengthen the provision of monthly supportive supervision visits to the village level.	# of monthly supervision visits conducted	Monthly, quarterly and annual reports)
3.5: Assess, procure, and distribute training materials, cooking demonstration materials, tools and supplies necessary for Community Based Nutrition and ECD services at the community level	# of training material, tools # height boards, MUAC tapes, growth reference charts, etc) procured and distributed # of VNS which received cooking demonstration materials	Supply and distribution records
3.6: Support delivery of quality outpatient services in the health centers and delivery of quality in-patient services in the district hospitals.	Proportion of health center staff trained in accordance with the national protocol on malnutrition management	Training reports
Outcome / Objective 4: Promote social and behavior change at community level for improved maternal, Infant and Young Child feeding practices in Nyarugenge district.		
Output / Expected Result –ER 4: Improved practices of nutrition-related behaviors among target populations (or households) with malnourished children and pregnant and lactating women and those who are at risk are practicing improved nutrition-related behaviors.		
Activities (for Output/ER 4):		
4.1. Organize sensitization meetings with district and sector-level authorities and partners (DP, CSO/FBO, Administrative Authorities, local leader.	# of sensitization meetings per sector and category	Meetings minutes
4. 2. Organize an orientation session on nutrition of community-level frontline staff (CHWs, EHO, Education Focal Points among others).	# community-level frontline staff oriented	Training records
4.3. Organize a Media Orientation Workshop for the District and Sector Level Media campaign with Community Radio.	Number of media channels and outlets oriented	District quarterly reports

	Number of public events on nutrition held Number of district which organize at least 10 Umuganda meetings incorporating a component related to nutrition per quarter.	
4.4. Sensitize male partners and youth, including women of reproductive age, in schools and in the community, on the importance of 1,000 days and Early Childhood development practices through radio program.	# of radio nutrition and ECD messages and spots aired	
4.5. Sensitize Youth (at marriage age) on Essential Nutrition Actions	# of sensitization events conducted	Events reports
4.6: Reinforce capacity of community based ECD providers and mothers through nutrition and hygiene promotion as well as positive parenting	# of ECD service providers trained # of mothers trained	Quarterly progress reports
Outcome / Objective 5: Improve food security and resilience for vulnerable households with children under two and pregnant and lactating women.		
Output / Expected Result –ER 5: Improved food security and resilience for vulnerable households with children under two and pregnant and lactating women.		
Activities (for Output/ER 5):		
5.1: Identify available foods (local food production.) – for Dietary Diversification (and look if there is gap in solving nutrition needs. – food diversification (DDS)	– documentation of on available foods – Documentation on foods needs – Identified food needs	Baseline survey report
5.2.: Establishment and training of farmer field learning schools (FFLS) groups.	# of FFLS groups established # of farmers receiving training	FFLS Monitoring reports Training reports
5. 3: Provide inputs to FFLS including seeds and small livestock for kitchen gardens in targeted households.	# of households receiving "minimum package" of seeds # of households receiving livestock"	Small livestock Distribution records
5. 4: Provision of skills on bio-fortified crop production.	# of farmers training on bio-fortified crop production	Training records
5. 5: Creation, training and monitoring of savings and lending groups.	# of households provided with training on informal savings/lending groups	Training records

Project Budget

The budget given below is an estimation of the cost of the different activities planned. It will be the contribution of the Project toward the GOR's program of reduction of stunting. This budget is given on the assumption that it will be approval of a 20% budget flexibility to permit re-adjustments in budgetary allocations in response to operation research findings or any other acceptable written justification.

Designation	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total project budget (RWF)**
Personnel (salaries, benefits, insurance)	138,468,950	142,566,356	140,787,893	128,204,685	118,576,889	668,604,773
Sub-total personnel cost						**668,604,773**
Travel (transportation cost, travel, Per diem)						
Transport cost	7,000,000	7,100,983	7,883,890	6,346,005	5,000,000	33,330,878
Accommodation	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
Per diem	18,000,000	18,000,000	18,000,000	18,000,000	18,000,000	90,000,000
Sub-total						**133,330,878**
Equipment/suppliers						
Computer (laptops, desktops) and/or suppliers	16,164,000					16,164,000
Vehicle purchase and spares	50,000,000	1,250,000	1,025,000	1,500,000	1,700,000	55,475,000
Motorcycles and spares	5,000,000	800,000	500,000	700,000	800,000	7,800,000
Office Equipment	20,000,000	2,000,000	2,000,000	2,000,000	2,000,000	28,000,000
Office and supplies and stationaries	5,000,000	2,000,000	2,000,000	1,000,000	1,000,000	11,000,000
Sub-total equipment/suppliers						**118,439,000**
Direct program cost (implementation)						
Expected result 1	35,000,000	45,067,800	35,468,900	30,000,000	25,670,000	171,206,700
Expected result 2	53,454,600	84,688,500	70,300,045	65,999,970	60,880,070	335,323,185
Expected result 3	35,000,000	25,000,000	20,000,000	30,000,000	22,990,000	132,990,000
Expected result 4	43,200,000	20,000,000	15,000,000	25,000,000	30,000,000	130,000,000
Expected result 5	124,500,000	100,870,000	80,000,000	64,500,700	86,700,000	456,570,700
Sub-total direct implementation cost						**1,226,090,585**
Operational cost (office rent, utilities, audit, fuel, maintenance, finance software, analysis software, visibility suppliers)	32,500,000	36,000,000	35,000,000	30,000,000	25,000,000	158,500,000
Sub-total						**158,500,000**
Indirect cost						
Overhead (7% of the direct cost)	16,562,000	16,562,000	16,562,000	16,562,000	16,562,000	82,810,000
Sub-total						**82,810,000**
TOTAL PROJECT COST						**2,387,775,236**