mwanzo bora
nutrition program

Mid Term Evaluation Report for the Program Implementation

in Morogoro, Dodoma and Manyara Regions

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LIST OF ACRONYMS AND ABBREVIATIONS

BMI	--	Body Mass Index
CDOs	--	Community Development Officers
CHWs	--	Community Health Workers
CoP	--	Chief of Party
CSOs	--	Civil Society Organizations
DDI	--	Deputy Director Implementation
DDIS	--	Deputy Director Institutional Strengthening
DED	--	District Executive Director
DMO	--	District Medical Officer
DMNuSC	--	District Multi-sectoral Nutrition Steering Committee
DNTF	--	District Nutrition Technical Facilitators
DNuO	--	District Nutrition Officer
DPGN	--	Donor Partners Group on Nutrition
FtF	--	Feed the Future
GHI	--	Global Health Initiative
GOT	--	Government of Tanzania
HBCPs	--	Home Based Care Providers
HKI	--	Helen Keller International
IDI	--	In Depth Interview
IFA	--	Iron Folic Acid
IPT	--	Intermittent Presumptive Treatment
IR	--	Intermediate Result
ITNs	--	Insecticide Treated Nets
IYCF	--	Infant and Young Child Feeding
LGA	--	Local Government Authority
LLITN	--	Long Lasting Insecticide Treated Net
MAD	--	Minimum Acceptable Diet
MAFC	--	Ministry of Agriculture, Food Security and Cooperatives
MBNP	--	Mwanzo Bora Nutrition Program
M&E	--	Monitoring and Evaluation
MOHSW	--	Ministry of Health and Social Welfare
MFF	--	Minimum Feeding Frequency
MTE	--	Mid Term Evaluation

MTEF	--	Medium Term Expenditure Framework
MUAC	--	Middle Upper Arm Circumference
PIs	--	Performance Indicators
PMO	--	Prime Minister's Office
PMORALG	--	Prime Minister's Office-Regional Administration and Local Government
PMTCT	--	Prevention of Mother To Child Transmission
PSG	--	Peer Support Group
RMNuSC	--	Regional Multi-sectoral Nutrition Steering Committee
RNuO	--	Regional Nutrition Officer
SBCC	--	Social and Behavior Change Communication
SSQ	--	Semi Structured Questionnaire
Sub IRs	--	Sub Intermediate Results
SUN	--	Scaling Up Nutrition
TAFSIP	--	Tanzania Agriculture and Food Security Investment Plan
TDHS	--	Tanzania Demographic and Health Survey
TFNC	--	Tanzania Food and Nutrition Center
TMG	--	The Manoff Group
UNICEF	--	United Nations Children Emergency Fund
USAID	--	United States Agency for International Development
VEO	--	Village Executive Officer
WEO	--	Ward Executive Officer
WFP	--	World Food Programme
WHO	--	World Health Organization

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Our sincere thanks also go to all the stakeholders listed in *Annex 2,* led by CHWs in the three districts covered during this evaluation exercise for their valuable time and support. Many thanks also go to the Peer Support Group (PSG) members and head of eligible households who participated in the consultations.

EXECUTIVE SUMMARY

Background

This mid-term evaluation (MTE) was conducted for three months from October 6th 2014 and was designed to provide information that demonstrates the progress made by the implementation of the Mwanzo Bora Nutrition Program (MNBP), a five-year Program that became effective in September 2011. A consortium of four organizations led by Africare implements the Mwanzo Bora Nutrition Program. Other members of the consortium are COUNSENUTH, Deloitte and Manoff. In the regions, the program works in partnership with relevant regional and district government institutions and the private sector composed of Civil Society Organizations (CSOs). MBNP was approved with a total budget of USD $30 million by USAID Feed the Future (FtF) and Global Health Initiative (GHI) vides Program Agreement No. AID-621-A-11-00001.

The overall goal of the program is to improve the nutritional status of children and pregnant and lactating women in Tanzania, with specific focus on reducing maternal anemia and childhood stunting by at least 20% in Dodoma, Manyara and Morogoro regions. The program uses a community based approach to which Nutrition Social Behavioral Change Communication (SBCC) has been a key strategy utilized to achieve this capacity enhancement and transformation objective, while placing an emphasis on the first 1,000 days of the child's life. Furthermore, the program aims to strengthen a referral and counter–referral service system whereby ward and community level nutrition and agriculture programs are linked to facility based health.

Design and Methodology

MTE was designed in a way that addresses fundamental questions to determine whether or not the intended results have been achieved. To arrive at the answers to the evaluation questions, the evaluator employed a mixture of gender responsive methods, which entailed both quantitative and qualitative data collection techniques. In order to collect relevant information that could respond to the purpose of the evaluation, the evaluator also used triangulation of data generated from these various methods. The methods used included: i) Review of project documents and relevant policies; ii) Key informant interviews with MBNP staff, consortium members, Government personnel and other partners at the national and local governments; iii) Focus group discussions (FGDs) with mainly Peer support group (PSGs) members; iv) Surveys of beneficiaries at the household level; v) Stakeholder analysis; and vi) Observations at service delivery and technology sites.

For the household surveys, the Team used a three-stage sampling procedure to select districts, villages and a sample of 165 households from three out of the 10 districts in which MBNP started implementation in 2011 before expanding to now cover 20 districts. The elgible households, which primarily constitute households with women of reproductive age (15-49 years) who are breastfeeding,

mothers of children under five years of age, pregnant and/or caretakers of children under five years of age were randomly selected in each village.

Key Findings

The prevalence rate of child stunting (height-for-age) among children under-five years of age in the 10 Districts where the project started implementation in 2011 is 40%. The national data (2010 TDHS)[1] indicate 42% national prevalence rate of child stunting. Though it is not verified if this is a statistically significant reduction, any improvement in the prevalence of child stunting is programmatic important. The regional assessment on prevalence of child stunting showed 44.2% in Morogoro Region, 38.2% in Dodoma Region and 36.1% in Manyara Region, respectively.

The prevalence rate of anemia among women of reproductive age 15-49 years in the program area was 37%. According to the 2010 TDHS result, anemia prevalence in the nation is 40%. This performance of MBNP could be attributed to a number of successfully implemented interventions that focused awareness creation on the importance of iron supplementation on pregnant women, coupled with improvement of drugs ordering and supply chain to reduce stock outs as well as uptake of iron supplements during pregnancy and the post-partum period.

Increase Government allocation for nutrition interventions

All 10 districts in the program area have included nutrition essential actions and budgets in their annual plans; and, largely supported the effort towards the increased budget allocations for nutrition interventions at national and district level. However, planned actions were not entirely incorporated and budgeted for in every sector plan; and even with an increase in budget allocation, there are still very few resources readily available for implementing nutrition activities.

Increase consumption of nutritious foods at the household level

A total of 51% of breastfed children age 6-23 months, received a Minimum Acceptable Diet (MAD) in the 24 hours preceding the survey. The assessment of MAD in 2010 TDHS shows 32%. Furthermore, the analysis in terms of the major foods classes consumed in the day or night preceding the interview revealed that 88% consumed foods made from grains, 64% ate vegetables, 40% were fed with protein-rich foods: legumes and nuts, 31% ate meat, fish or poultry; and 35% fruits. Other foods such as milk and other milk products including yogurts were consumed by 19% of children and only 2% of children ate eggs. The use of infant formula and fortified baby foods was minimal.

Women of reproductive age in the program zone of influence (ZOI) consumed a diversified diet at a mean value of 4.1 food groups. The 2010 TDHS finding is a 3.6 mean value of consumed food groups. All (100%) women respondents ate foods made of roots and tubers (which complement cereals as a source of energy) and about 53% consumed protein-rich foods such as legumes in the day and night

[1] TDHS –Tanzania Demographic Health Survey

preceding the interview. 38% consumed meat/fish/poultry/eggs that are a good source of iron. Milk and milk products including yogurt was consumed by a small proportion 15% of women; and a few (3%) women ate eggs. This performance may be attributed to the created awareness on complementary feeding and SBCC education promotion by the program.

Access to diversified foods particularly vegetables is seasonal and limited due to low household adoption of small livestock keeping and low household income. Peer Support Group (PSG) members reported this during FGDs as well as Community Health Workers (CHWs) and Health Facility Workers (HFWs) during the in-depth interviews.

Improved Knowledge, Attitudes, Gender Norms and Social Support

SBCC Kits were reported to be very effective, especially the use of virtual facilitated radio communication channel to promote facts on child and maternal nutrition. This was reported during the FGDs in 75% (15 out of 20) of the visited villages.

The number of male PSG members has decreased by 2%, from about 41% in 2012/13 to 39% in 2013/14 (MBNP Annual Reports). With the recognition of the important role to be played by men in impacting nutritional outcomes, this ratio presents a challenge. Moreover, the analysis of the gender responsiveness in matters of family nutrition, i.e., the willingness of men to actively carry out nutrition tasks assigned to them as members of the PSG that would have benefited to the program has neither been reported by the program nor assessed by this MTE as it was beyond the scope.

Nearly all (99%) children are breastfed for some period of time. Further, the assessment revealed that 28% of children under 24 months of age were breastfed six times or more during the night (between sunset and sunrise), and 72% were breastfed six times or more during the daylight, which meets WHO/UNICEF recommendations for optimal breastfeeding.

71% of infants under 6 months were exclusively breastfed in a day preceding the survey. The national data (2010 TDHS) indicate that 50% of infants are exclusively breastfed. The Minimum Feeding Frequency (MFF) of breastfed infants 6-8 months was 87%; and the MFF of children 9-23 months was about 77% indicating that these two groups of children had received the recommended daily MFF in the 24 hours preceding the evaluation.

A total of 91.6% of the caretakers of children aged 0-59 month reported use of soap in washing their hands at least once within 24 hours preceding the survey. However, only 38% of the caretakers are awareness of the tippy tap hand wash technology and the household adoption remains low.

Improve quality of maternal and child health nutrition services

MBNP has to a large extent achieved its set target of training health professionals and non-health professionals on maternal and child health care and nutrition. Trained profesionals provided indispensable services in health facilities and communities, which included promotion of exclusive breast-feeding for children 0-6 months and complementary feeding for children 6 - 23 months, among

others. The services were reported to have positively influenced program performance as demonstrated on improved knowledge and change in breastfeeding and complementary feeding practices.

More than a half (53%) of pregnant women made their first ANC visit during the first trimester of pregnancy. 87% of interviewed women of reproductive age reported to have received ANC services from skilled providers (such as nurses and midwives) at the health facility, while the remaining received from non-medical professionals, such as CHWs and traditional birth attendants (TBAs). 80% of women are reported to have received ANC from a skilled provider in the 2010 TDHS.

86% of participating women aged 15-49 years reported that they took iron supplements during their last pregnancy and the post-partum period. Out of these, more than a half (55%) used iron tablets for 90 or more days. According to 2010 TDHS, iron supplementation by women aged 15-49 years is only 4%.

Access to Vitamin A supplementation by children of age 6-59 months has improved. The analysis showed that 94% of children aged 6-59 months were given vitamin A supplements in the six months before the survey. A total of 61% of children aged 6-59 months were given vitamin A supplements, reported 2010 TDHS. In addition to the Government campaigns, which are conducted six monthly, these results could be attributed to the education and SBBC promotion that is done by trained personnel from MBNP in health facilities and communities.

84% of women of reproductive age from 15-19 years took antimalarial drugs during their last pregnancy. These drugs were provided during the Ante Natal Care (ANC) visit, which is suggesting that Intermittent Preventive Treatment (IPTp) use of Sulfadoxine Pyrimethamine (SP), is integrated into routine antenatal care.

83% of children age 12-59 months received deworming medication in the six months before the survey. These findings may suggest a decrease in stock outs and improvement in the quality of services provided by HFWs during ANC visits.

Strengthen Institutional Capacity of Government and a national NGO

There has been a significant improvement in the strengthening of operational and technical institutional capacity of Tanzania Food and Nutrition Center (TFNC). All six (6) targeted improvements identified during their capacity assessment including lack of clarity on the mandate for the TFNC, its placing in the Government of Tanzania (GoT) structure and effective organization structure; lack of permanent Managing Director, and lack of a strategic plan for the Centre were implemented with good progress. These include the institutionalization of the TFNC Board of Directors (BoD) and the approval of a Comprehensive Strategic plan in November 2014. However, there are still administrative bottlenecks that slowed efficiency in the coordination of the implemented nutrition interventions, and limited technical capacity necessary to improve and scale up SBCC programming countrywide.

The ability of COUNSEUTH to mobilize and manage finances has been enhanced, as well as key organizational and operational systems have been improved. The organization has a strategic plan and an institituonal capacity building plan that was informed by the outcome of the Capacity Needs Assessment study conducted by in 2012. The finalization of this strategic plan is expected to facilitate consistency implementation of its mission.

The National Nutrition Coordination Secretariat at the Prime Minister's Office has been supported to develop a Draft Nutrition Coordination Plan, which has been submitted for approval.

District Nutrition Multi-Sectorial Steering Committees (DMNSCs) in all 10 District Councils have been established. Nonetheless, most of these established DMNSCs were not conducting quarterly meetings as per policy requirement.

Program effectiveness

MBNP has been effective in strengthening the operational and technical capacity of the Government and CSOs to deliver quality nutrition education and communication and strengthening the delivery of integrated community-based nutrition services and social behavior-changing education. The program was also found effective in facilitating and/or promoting various services across and within the service delivery chain, including support for orientation sessions, training for knowledge and skills development, and equipment to improve operational capacity and competitiveness. The governance procedures revealed that they are well within the approved program design, and represent an effective framework for MBNP management and implementation.

Progress toward achievement of intended results

The evaluation team found substantive evidence of progress in almost all the sub intermediate result areas of MBNP. The findings indicated that other Sub IRs have made the most progress; while the ones related to increasing consumption of nutritious food at household level have lagged behind. The willingness of households to consume nutritious food was evident but the means to access these food items remains a problem. MBNP has accelerated the implementation of the earmarked interventions under this Sub IR and it is on a good track to achieving its objectives by end date.

Recommendations

The following are the proposed recommendations for the program to consider:

1. MBNP should continue to work in collaboration with Prime Ministers Office (PMO) and TFNC to enhance the role of DMNSC's in nutrition planning and budgeting at the Council level.

2. The program should accelerate home gardening and small livestock keeping and promote other livelihood activities as a measure to improve access diversified nutritious food items at the household level.

3. The program should implement the recommendations made by BBC Media Action following the assessment of SBCC Kit.

4. Since PSGs are the main vehicle for reaching household members, mobilization activities should consciously reinforce involvement male and other marginalized population groups. And, ensure regular access to nutrition and SBCC education through all formed PSGs.

5. MBNP need to conduct a gender analysis study to generate evidence information on gender outcomes that are attributed to the program implementation, document lessons learned as well as to identify gender gaps to inform gender planning and budgeting.

6. The program should strengthen its efforts to raise the awareness and promote education on the importance of dietary diversification, food fortification and use of iodized salt as well as hand washing as an important hygiene practice through its SBBC program; and continue collaboration on food fortification including salt iodization.

7. Proposed areas for investment on improving utilization of maternal and child health and nutrition services will be those with high potential to develop capacity of public and private institutions and personnel to deliver quality maternal and child health education and counseling services.

8. Improve community-to-facility linkages and referral system by putting in place a feedback mechanism to track the number of referrals and measure the efficiency of the referral mechanism.

9. The program should continue conducting refresher training to the existing health facility workers, CHWs/HBCs, local government leaders and other extension workers as well as checking for attrition.

10. The program should support the village leaders in becoming more committed and supportive of the CHWs/HBCs by creating/increasing their awareness and engaging them appropriately. This can be achieved by providing orientation and engaging them with program specific roles, such as insuring that nutrition is a permanent agenda in village Council meetings as well as Village Assemblies.

11. Support DNTFs by ensuring that all they do for the program is part of their annual plans, which makes them accountable to the department heads through the provision of updates and feedback about the program. This will facilitate integration of the program and most importantly, nutrition will become an issue of concern in each sector, as well as strengthening the role of DNTFs beyond delivery of trainings organized by the program.

12. MBNP should continue to support TFNC to iron out existing administrative bottlenecks and strengthen SBCC programming capacity so that all achieved milestones can benefit the organization and nation as a whole.

13. MBNP should continue to support the effective functioning of COUNSENUTH's governance structures of the organization as the delay is likely to attract new changes in the Institutional Capacity Needs over the period of the graduation plan, which deters realization of program results.

14. The current absence of the effective stakeholders' coordination has resulted in poor accountability and participation of stakeholders, which poses a threat on the continuity and sustainability of MBNP support. The program should work closely with Council Directors to increase their commitment in organizing committee meetings on a quarterly basis.

1-0 INTRODUCTION

1-1 Context

Africare Tanzania with funding from USAID Feed the Future (FtF) and Global Health Initiative (GHI) is leading the implementation of a flagship nutrition project called Mwanzo Bora Nutrition Program (MBNP) under Tanzania's Feed the Future (FtF) program. The goal of this project is to improve the nutritional status of women and children in Tanzania. Specifically, MBNP objectives are (i) to reduce the prevalence of low height for age, or stunting among children less than five years of age by 20%, and (ii) to reduce maternal anemia among pregnant and lactating women by 20% in three regions of Dodoma, Manyara, and Morogoro in Tanzania Mainland.

Despite many years of investment in health, nutrition and agricultural programming and the establishment creation of the Tanzania Food and Nutrition Centre (TFNC), Tanzania continues to face many challenges with alarming rates of anemia and chronic under- nutrition. Child nutrition has been one of the key concerns of national medical intervention as malnutrition[2] in all forms is one of the major contributing factors in maternal and child mortality.

The country currently faces unique opportunity to significantly improve nutrition coordination, targeting, beneficiary coverage and service delivery mechanisms as many of the existing national nutrition programs are in the process of redesigning and restructuring. The country's leadership has demonstrated political will to deliver on nutrition through President Kikwete's commitment in September 2011 to be part of the global Scaling-Up Nutrition (SUN) Initiative, and by the Prime Minister establishing a High Level Steering Committee on Nutrition (HLSC) under the PMO to oversee implementation of National Nutrition Strategy (NNS). The National Nutrition Strategy and its Implementation Plan have been developed, and all districts have been directed by the Central Government to include nutrition on their development plans and budgets. This leadership creates the platform for addressing nutrition as a priority in Tanzania.

MBNP is directly supporting the implementation of the Government of Tanzania's National Nutrition Strategy (NNS), and the Tanzania Agriculture and Food Security Investment Plan (TAFSIP). MBNP is engaging and building the capacity of Councils' Health Management Teams (CHMTs) and existing human resources including the new cadre of nutrition officers, health, agriculture extension and community development officers to provide the basic nutrition services that will reduce childhood stunting and maternal anemia. Additionally, MBNP engages with and builds the capacity of local Tanzanian Civil Society Organizations (CSOs) working in the target regions.

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[2] *Malnutrition in this context means under-nutrition – protein energy malnutrition and micronutrients under-nutrition.*

1-2 Program Objective and Strategy

The overall goal of the program is to improve the nutritional status of children and pregnant and lactating women in Tanzania. This overall goal will be attained through achievement of two outcomes: (i) *Strengthened* capacity of government and indigenous NGOs to deliver quality education on nutrition and communication; and (ii) *Strengthened* delivery of community-based nutrition services and social behavior-changing education resulting in a model that can swiftly be scaled-up to reduce childhood stunting and maternal anemia. Achievement of these outcomes would entail specifically attaining the following objectives:

i. Reduce the prevalence of low height for age or stunting among children less than five years of age by 20% in three regions of Dodoma, Manyara and Morogoro.
ii. Reduce maternal anemia among pregnant and lactating by 20% in three regions of Dodoma, Manyara and Morogoro.
iii. Support the Government of Tanzania (GoT) and local Tanzania Non-Governmental Organizations (NGOs) and CSO's to improve nutritional outcomes in targeted regions with a strong focus on scaling up community level interventions.
iv. Raise and expand awareness about under-nutrition in the country and strengthen institutional capacity to respond to issues related to malnutrition.
v. Provide targeted assistance to further strengthen the technical, administrative and financial capacity of the Tanzania Food and Nutrition Centre (TFNC), the Centre for Counseling for Nutrition and Health (COUNSENUTH) and Civil Society Organizations (CSOs) to implement the NNS.

Nutrition SBCC is a key strategy to achieve this capacity enhancement and transformation objective, while placing an emphasis on the first 1,000 days of life. Furthermore, the program aims to strengthen a referral and counter–referral service system whereby ward and community level nutrition and agriculture programs are linked to facility based health.

MBNP is a partnership initiative in which Africare prime. Africare as a prime partner is responsible for managing the overall program implementation and deliverables. Key short-term technical partners include Deloitte and The Manoff Group (TMG). Deloitte provide significant institutional strengthening support to TFNC and COUNSENUTH to ensure that by the end of the program, these local indigenous partners have strong operational foundations. TMG provide SBCC technical and strategic advice to ensure that their ability to lead, manage and sustain nutrition implementation and innovations has been reinforced. Africare is working closely with COUNSENUTH to enhance their institutional capacity to become a premiere nutrition technical assistance organization in nutrition SBCC approaches in Tanzania, with the capacity to implement large-scale programs and manage funding from multiple donors.

MNBP team of implementing partners is also endowed with several strategic lead national collaborating partners, TFNC and LGAs whose participation maximizes the program potential to leverage existing structures and resources and capitalize on established networks.

1-3 Mid-Term Evaluation Purpose and Scope of Work

Under the FtF initiative, USAID has placed a strong emphasis on monitoring and evaluation as well as evidence-based programming. This is evident by the existence of detailed result frameworks and a comprehensive indicator handbook for use by all programs to ensure consistency in the comprehension of the indicators and collection of data.

MBNP has designed a monitoring and evaluation system that feeds into the FtF system. Monitoring, evaluation and learning, aims at collecting present information about program implementation to enable erudition and enlighten the program on changes taking place in the target communities whether intended or unintended. With this kind of information, the program is able to measure positive changes including making the program more responsive to the needs of its beneficiaries in order to align itself accordingly and thereby obtain a lasting impact on the reduction of anemia and stunting.

The purpose of this MTE is to provide an independent opinion on the progress made during the first three years (2011-2014) in the implementation of the MNBP in terms of processes and whether or not it is on track towards achieving the intended impact. This information would assist Africare in determining whether a change in strategic emphasis of MBNP is worthwhile. Therefore, based on the implementation of MBNP, Africare is interested in learning more about what works and what does not and why, in terms of strengthening the capacity of government and indigenous NGOs to deliver quality nutrition education and communication, and the delivery of community-based nutrition services and social behavior-changing education resulting in a model that can quickly be scaled-up to reduce child stunting and maternal anemia.

1-4 Report Layout

The draft MTE Report is structured in 7 Chapters and 4 Annexes. Chapter 1, provides the introduction to the MTE; Chapter 2 elaborates the methodology and Chapter 3 presents the key evaluation findings. In Chapter 4, the assessment of program management is given, and Chapter 5 provides lessons learnt. In Chapter 6, a conclusion from the study is presented and in Chapter 7, recommendations for improvement of the program implementation are discussed.

Annex 1 provides a list of studied villages and Annex 2 presents a list of people met. Annex 3 gives a set of data collection tools and Annex 4 presents a copy of Ethical clearance certificate.

2-0 METHODOLOGY AND DESIGN

This Chapter provides an overview of the methodology and design of MTE with special focus on the methodology, design, ethical considerations, stakeholder's dissemination and inherent study limitations.

2-1 Methodology

In line with the Scope of Work (SOW), the methodology used to conduct MTE entailed reviewing the extent to which the project has so far contributed to achieving the overall goal. An independent team of consultants from ST Associates conducted the evaluation. The team collected data and information on progress for the assessment of the performance of MBNP in the field. In order to arrive at the answers to the evaluation questions, the evaluation approach was based on using varied methods and triangulation of data to ensure that the findings fully respond to the purpose of the evaluation. The methods included the following:

Document Reviews of not only selected documents listed in the SOW but also materials assembled by other reviewers (particularly of the performance monitoring plan baseline data), targets and performance reports (which was useful in the building on of baseline conditions to assess progress as reported by MBNP since its inception in September 2011 to September 30th 2014;

Conduct Key Informant Interviews with MBNP activity senior managers and staff, program consortium members and partners that operate nationally, or in other specific areas in MBNP project regions, districts and communities;

Focus Group Discussions (FGDs), mainly with Peer support groups (PSGs) members;

Conducted Survey of implementing actors covering not only the women of reproductive age (15-49 years), the ultimate recipients of the nutritional services but also intermediate beneficiaries such as Community Health Workers (CHWs) and Home Based Care Providers (HBCs), health facility workers and CSOs, which are implementing the program at the district level. It is important to note that gender was integrated within the survey questionnaires;

Stakeholder Analysis was used to determine the effectiveness of partnerships and collaborations forged with not only other USAID supported FtF implementing partners in the country but also other areas of focus in the implementation of various MBNP interventions;

Observation at service delivery and technology sites such as the demonstration sites/plots, household gardening, small livestock keeping, and hand washing practice using tippy taps ('kibuyu chirizi'), respectively.

Anemia Testing: Anemia testing was performed using a widely used system that rapidly measures Hemoglobin (Hb) concentration from a drop of blood obtained from by finger, HemoCue photometer (Hb 201+). This rapid testing allows results to be reported to the respondent immediately following the testing procedure.

Anthropometric measures were taken for children under five years of age and women of reproductive age of 15-49 years. Anthropometry measurement of a person's height (length) and weight were taken to assess the nutritional status of a study population.

Iodization of salt used in households was tested using a "rapid iodine test kit"

2-2 Evaluation Design

2-2.1 Sampling Procedure

MTE adopted a three stage sampling frame to identify study districts, villages, eligible households and other respondents.

Sampled Districts: three districts were randomly selected out of the 10 covered by MBNP since year 1 of its implementation in 2011. Sampled districts were Mvomero District Council (Morogoro Region), Kongwa District Council (Dodoma Region), and Babati District Council (Manyara Region). The sample size was determined using a representative sample of the proportions of a large population.

Sampled Villages: Sampled villages for MTE compose of 8% of the total number of villages in the 10 program districts, which amounted to a total of 20 randomly selected villages for MTE data collection. Sampling frame comprised of all villages in selected districts where MBNP activity implementation has taken place for three years. A Systematic Random Sampling (SRS) method was used. A list of sampled villages in each district is presented in ***Annex 1.***

Selection of Households for the study: The primary respondents constituted households with women of reproductive age (15-49 years) who were breastfeeding, mothers of children under five years of age, pregnant and/or caretakers of children under five years of age. The selection of the eligible households was random village based. *Eligible household in this MTE refers to women of reproductive age (15-49) years who were pregnant or breastfeeding mothers of under five years children, as well as,* all men who were taking care of those eligible women in each of the selected households. Firstly, a list of eligible households in each hamlet in the village was established; thereafter SRS method was applied to select eight households per village. The evaluation therefore successfully administered questionnaires in 165 households, which is 108.5% of the initially planned 152 households.

Respondents: In addition to the household level respondents, all other respondents were to be purposefully and subjectively selected from key stakeholder groups and individuals based on

involvement with the program at all levels: community, district, regional and national. A total of 147 individuals participated in discussions and shared their perceptions on the progress of the program; whether it has made it or if it is on track towards achieving the intended impact. A detailed list of people met from all levels is given in *Annex 2.*

2-2.2 Data Collection tools and Enumeration

Secondary data were collected through in-depth documentary review; and primary data were collected using developed data collection tools. These tools were developed in consultation with stakeholders, pre-tested and translated into Kiswahili from the English Language for user-friendliness before actual fieldwork. Tools that were adopted for MTE include 15 modules household questionnaires, which were designed to collect data from eligible households, in-depth interview guide (IDI) with key informants and guide for moderating focus group discussions (FGDs). Final set of data collection tools is attached in *Annex 3.*

Enumerators formed an integral part of the collection and quality of data collected. A total of 11 (4 male and 7 female) trained nurses, nutritionists and evaluation experts were recruited, received theoretical and practical training on human research, and successfully engaged with the field data collection exercise.

2-2.3 Implementation process

The team employed a mixed-approach that entailed both quantitative and qualitative methods in order to collect relevant information. The MTE assessed all aspects of project design, implementation, and reporting. The evaluation process included desk studies, briefings of evaluators, training of enumerators, stakeholder's review of data collection tools, and pre-testing of tools. Also, field visits to implementing regions, districts and villages, facility and household survey, program review, and debriefings. Focus group discussions were conducted to elicit information on perceptions of program effects, with the emerging findings complementing the quantitative data gathered through household surveys.

A household survey of eligible household members was conducted in order to get insights into benefits from MBNP as well as key constraints faced by beneficiaries. This was done via administration of household questionnaires.

The evaluation team assessed progress toward targets to determine the likelihood of which intermediate results have been achieved. The evaluation team used established baseline conditions by Tanzania Demographic Household Survey, 2010 (2010 TDHS) for assessing progress achieved toward the set IRs and Sub-IRs. The status of each parameter per result (in line with the evaluation questions) was assessed i.e. what MBNP's intervention contributed to, any challenges, the achievement level and an explanation where results were not achieved as planned. Methods for collecting and analyzing data

from fieldwork were consolidated to develop the Team's conclusions and recommendations, and acted as a solid basis for subsequent MBNP actions pursuant to the evaluation.

2-2.4 Data Analysis

All completed quantitative questionnaires were sorted, batched and checked manually for accuracy before embarking in data entry and processing using CSPro software. Thereafter, verification was done and data exported to SPSS for cleaning to check for outliers and human errors before carrying out the required analysis. Data analysis to generate the answers to specific evaluation questions as stipulated in the SOW entailed several approaches that included the following:

a) Analysis in SPSS to generate summary tables on the various variables being tracked by MBNP, as well as key questions included in MTE questionnaires;
b) Performed content analysis of data gathered from both IDI and FGDs;
c) Used '*triangulation*' of data from all the different sources to answer each evaluation question. The 'triangulation' process in and of itself was also used to get findings which entailed the results analysis based on the project's performance monitoring plan (PMP);
d) Use of midterm evaluation findings to confirm or refute progress gleaned from MBNP progress reports or documents; and
e) Use of secondary data to reconfirm and establish contextual analysis within each Sub-IR, emerging issues relating to the program with main focus on the design, implementation, results and lessons learned.

The evaluation team specifically analyzed the level of progress towards achieving the annual targets, and MBNP's overall objective as well as examined the performance of the targets set by the program under every Sub-IRs and FtF planned results using pre-defined program PMP and FANTA-2[3] indicators, respectively. The other key elements of the evaluation such as crosscutting issues, and management issues were also critically assessed in relation to their impact on program performance. As a result of this holistic approach, the Team provided recommendations for reprogramming and monitoring around MBNP's main objectives.

MTE findings generated have been used to shed more light on the program effectiveness, partnerships and management, with specific focus on:

- Effectiveness: Performance vis-à-vis the reality on the ground/ performance targets
- Partnerships: Stakeholder analysis, connectedness, and adequacy
- Management: Structure and staff composition, its adequacy in delivering activities as envisioned in its annual work plan.

[3] FANTA-2 website: www.fanta-2.org

2-3 Ethical Considerations

The study team obtained informed consent from respondents and if minor, from their parents/guardians on study procedures, i.e., household questionnaires, anthropometry and anemia testing. Enumerators carefully explained procedures for '*Protecting Human Research Participants'* to respondents, so as to ensure that they understand benefits and risks of participating in each procedure. There was no coercion or undue influence to recruit household members to participate in this study and it was made clear during the informed consent that refusal to participate in any of the study procedure will not affect their ability to access any nutrition or health services. It was not mandatory for respondents to answer the entire questionnaires and they free to skip to the next question if desired - this was also clearly explained to them during the informed consent and they were reminded throughout the survey.

There were minimal risks associated with anemia testing. Finger prick was done (rather venipuncture) to collect very small amount of blood sample analysis of the level of hemoglobin (Hb) materials used were immediately disposed in accordance with the standards for the disposal of biohazard waste. Minor discomforts at the time of finger prick subsided immediately. The finger was disinfected with alcohol wipes before the procedure and the site of finger pricking was covered with a piece of cotton wool immediately after the procedure to minimize chances of infection. Finger prick for anemia testing was conducted with no serious consequences. Respondents identified to be severely stunted or severely under-nourished were referred to a local health facility through CHWs to receive necessary assistance. There were no risks with taking anthropometric measures.

MTE did not collect any type of sensitive information that may impose social risks such as shame or tarnishing reputation within a household or the community. Reasonable precautions were taken to protect privacy and confidentiality of respondents. The HH questionnaires used for this study were similar to the DHS questionnaires (some of the adopted modules are standard), which are regularly used by the NBS at the national level in Tanzania. The Ethical Clearance Certificate was obtained from the MOHSW through NIMR (*see Annex* 4).

2-4 Stakeholders Dissemination

MTE findings will be presented in a stakeholder's workshop for validation and dissemination purposes. Generated information on nutritional status in the program ZOI could be used to improve not only implementation in three target regions (Morogoro, Dodoma and Manyara); but also policy decisions and planning and programming in the program and elsewhere. The envisaged stakeholders dissemination workshop, intends to provide an opportunity for sharing lessons learnt, possibilities for replication and potential for scale-up of good practices to benefit more people in Tanzania and beyond.

Invitation to stakeholder's dissemination workshop will include key sectors and ministries in the implementation of NNS, program implementing LGAs, CSOs, research institutions, representative of USAID supported FtF initiatives, development partners, and MBNP staff.

2-5 Inherent Limitations

The evaluation team believes that the findings of this report are appropriate based on the evidence gained through the above MTE design and methodology. However, the team would like to acknowledge the following data limitation. Some of the data collected were based on recall, thus they should be treated as estimations of the real situations.

Effects and/or results achieved may not have solely been contributed by MBNP because the SBCC strategy is for the first time being implemented in the country with limited research to avail evidence-based information for comparing and tracking progress in this regard.

3-0 MID-TERM EVALUATION FINDINGS

3-1 Assessment of Progress towards Achievement of Results

This section presents the findings of MTE with respect to the question: "*What is the progress made in the implementation of the MBNP in terms of processes; and is it on track towards achieving the intended impact?*" The observations and conclusions in this section were based on analysis of the project self-reported data, (supported by information drawn during the household survey from the three sampled districts) and stakeholder consultations at national and sub-national levels. The presentation of findings on the progress made toward achieving program results is organized around the intermediate results of the program, which are discussed below.

The overall goal of the program is *improved nutritional status of children and pregnant and lactating women in Tanzania*' with specific focus on reducing the prevalence of maternal anemia (as measured by blood hemoglobin concentration) and childhood stunting (low height for age) among children under-five years of age by at least 20% in Morogoro, Dodoma and Manyara by August 2016.

This goal will be attained through achievement of two principle objectives:

1. *Strengthened capacity of Government and indigenous CSOs to deliver quality nutrition education and communication.*

2. *Strengthened delivery of community-based nutrition services and social behavior-changing education resulting in a model that can quickly be scaled-up to reduce child stunting and* maternal anemia.

MBNP as one of the USAID Tanzania FtF programs, is implementing five Sub Result Areas (Sub-IRs) out of eight in the FtF results framework (MBNP revised PMP, August 2014) in order to achieve the overall program goal. These are: -

Sub –IR 3.1: Increased GOT budget allocations for nutrition interventions at national and district level;

Sub –IR 5.1: Increased consumption of nutritious foods by women and children at the household level;

Sub –IR 6.1: Improved knowledge, attitudes, gender norms and social support for specific maternal and child nutrition practices;

Sub–IR7.1: Improved quality of maternal and child nutrition services at the health facility and community; and

Sub–IR8.1: Strengthened institutional capacity of TFNC, COUNSENUTH, PMO, District Nutrition Multi-Sectoral Committees and CSOs.

In addition, the Performance Management Plan (PMP) of the program defines eight (8) performance indicators (PIs) for measuring project results (i.e., outcomes and outputs) which are linked to the Sub-

IRs. These PIs have been used to quantify and qualify the assessment of findings on progress so far made in the program implementation.

a. Number of districts with plans and budgets that include at least three Essential Nutrition Actions
b. Number of people trained on home vegetable gardening and keeping of small livestock
c. Number of people reached through community awareness supported by MBNP
d. Number of children under five who received Vitamin A from USG-supported programs
e. Number of children under five reached by USG-supported nutrition programs
f. Number of people trained in child health and nutrition through USG-supported programs
g. Enhanced human and institutional capacity development for increased sustainable nutrition program implementation for COUNSENUTH
h. Number of women of reproductive age receiving services from and reached by USG-supported health facilities and nutrition messages and programs

It is good to note that in the absence of baseline data on program indicators, MTE findings on the performance and outcome measuring indicators were compared to the 2010 TDHS results.

3-3 Increased Government Budget Allocation for Nutrition Interventions

This section provides the assessment of Sub IR 3.1, which was designed to support the increase in Government of Tanzania (GOT) budget allocations for nutrition interventions at national and district level. The successful implementation of this Sub-IR would contribute to the FtF effort to increase investment in agriculture and nutrition related activities. Program activities under this Sub-IR area were designed to ensure that district plans and budgets factored in at least three essential nutrition actions. This entailed support in planning and budgeting processes, and stakeholders review of the implementation at the national and district levels.

3-3.1 National Level

The activities under this intervention were focused on supporting GOT's efforts to increase its level of investment in nutrition in line with the President's commitment to have Tanzania as an early riser in the Scaling Up Nutrition (SUN) Initiative. The program since year 2011/12 has supported consolidation of gains from the National Nutrition Strategy (NNS) by creating awareness and commitment of the high level government structures on the need to increase investment in nutrition.

MBNP also supported focal persons in key ministries to take up their coordination and technical responsibilities. Twenty-five nutrition focal persons (18 males and 7 females) from nine lead ministries[4] and the Planning Commission tasked with the implementation of the NNS received training. This training was officiated by the Nutrition Secretariat in the Prime Minister's Office. Other nutrition implementing partners including World Health Organization (WHO), United Nations Children Fund (UNICEF) and Hellen Keller International (HKI) also participated. Each of the nine ministries developed a nutrition action plan.

MBNP successfully contributed in ensuring integration of nutrition activities into agricultural programs within the context of the Agriculture-Nutrition linkages through its active participation in the review of *National Food Security Policy,* for the Ministry of Agriculture, Food Security and Cooperatives. During the Joint Implementation Review (JIR) of the Food and Nutritional Security component of ASDP (the 7th Agriculture Sector Development Program), MBNP recommended a program focus on production, marketing, preservation and consumption of nutrition and energy dense foods (crop and livestock source).

These efforts have positively contributed to the intended results, which have been confirmed in Public Expenditure Review (PER) report of January 2014. The report indicated that annual budget allocation for the nutrition sector significantly increased during the three years especially after scaling-up efforts through NNS and strengthening of the Government nutrition agenda in FY2011/12. According to the

[4] Prime Minister's Office (PMO), Ministry of Community Development, Gender and Children (MCDGC), Ministry of Industry and Trade (MIT), Ministry of Livestock and Fisheries Development (MLFD), Ministry of Health and Social Welfare (MOHSW), Ministry of Agriculture, Fisheries and Cooperatives (MAFC), President's Office for Planning Commission (POPC), Ministry of Finance (MOF), Ministry of Education and Vocational Training (MOEVT) and Ministry of Water (MOW).

PER report, over a three-year period the budget allocation grew at a rate of 31% per annum, with a big jump between 2010/11 and 2011/12 (55%), while increase between 2011/12 and 2012/13 was 21% per annum. The GOT and Development Partners (DPs) efforts and commitment to improve the nutrition status in the country were apparent through this increase in the budget allocation.

However, the PER reported that the national aggregate data did not include the Local Government Authority (LGA) data due to difficulties in collecting nutrition specific budget and expenditure from districts/councils. The national nutrition sector total budget was determined on the basis of data collected at a national level through public and private sector organizations that are involved in nutrition programs and interventions. Therefore, the national data excluded the majority of LGAs data, because they could not be captured at a national level.

3-3.2 District Nutrition Planning and Budgeting

The activities under this intervention program focused on building institutional capacity through strengthening the institutions responsible for nutrition with a focus on LGAs, civil society organizations and district council level nutrition focal points.

MBNP actively participated in the development and operationalization of the Guideline for Councils for the Preparation of Plan and Budget for Nutrition, Prime Minster's Office, Second Edition, 2012. The guideline provides a package of nutrition activities for the district level stakeholders from different development sectors to plan and budget for essential nutrition actions.

In this context, MBNP collaborated with TFNC to conducted training sessions to enhance capacity of districts to identify and set a price for nutrition activities to be included in annual plans and budget through Medium Term Expenditure Frameworks (MTEFs). A total of 130 individuals of which 79 (60.8%) were male and 51 (39.2%) female were trained, including staff responsible for planning and budgeting in key sectors and various departments.

As a result of these trainings, most districts planned and budgeted for the recruitment of District Nutrition Officers (DNuOs) who responsible for would coordinating the implementation of nutrition activities. By the time of this MTE, all districts in the program ZOI had DNuOs in place. The assessment of MTEFs also showed other nutrition activities to include promotion of optimal breastfeeding of infants during the first six months of life; complementary feeding from six months of age with continued breastfeeding to 24 months and beyond; nutritional care of sick and malnourished children; nutrition for pregnant and lactating women; Prevention of vitamin A deficiency in women and children; adequate intake of iron and folic acid and prevention and control of anemia for pregnant women and children; and adequate intake of iodine at the household level. MBNP support continued through a collaborative arrangement with Helen Keller International (HKI) to orient LGAs on the updated Council's Nutrition Budgeting and Planning Guideline during which the emphasis was placed on allocation of adequate funds for addressing maternal anemia and stunting.

An indicator on number of districts with plans and budgets that include at least three essential nutrition actions tracks MBNP performance under this Sub IR 3.1. Overall the assessment indicates that the program has made significant achievements. By the time of this MTE, all ten (100%) District Councils adopted Guidelines for preparation of plan and budgets to a large extent and have successfully included at least three essential nutrition actions in MTEFs as targeted. In addition, Districts Nutrition Officers (DNuOs) have been appointed as per NNS to coordinate stakeholder's efforts.

Despite achieved performance, MTE revealed that the total nutrition budget allocation for nutrition has remained low. In some instances, the allocation remains on paper because even the allocated funds were not actually provided for implementation of identified nutrition interventions. Resource allocation was mainly ad- hoc and often times targeted those activities that were driven from the Central Government such as support of Vitamin A supplementation and deworming campaigns.

With an exception of districts in Manyara region, nutrition budget data from other districts for the past three years could not be obtained. The analysis of availed nutrition budget data showed fluctuating patterns among the District Councils in the Region from one year to the other. A similar observation was made by the Nutritional Sector Budget Expenditure review (Final Report, January 2014). It was reported that Councils are currently allocating funds for nutrition activities but nutrition budget data showed fluctuating patterns among the Councils as well as within each Council from one year to the other. Similarly, for some of the Councils, sets of budget data for the complete three years could not be obtained except from only six out of 14 visited councils were assessed. Other specific observations include the following:

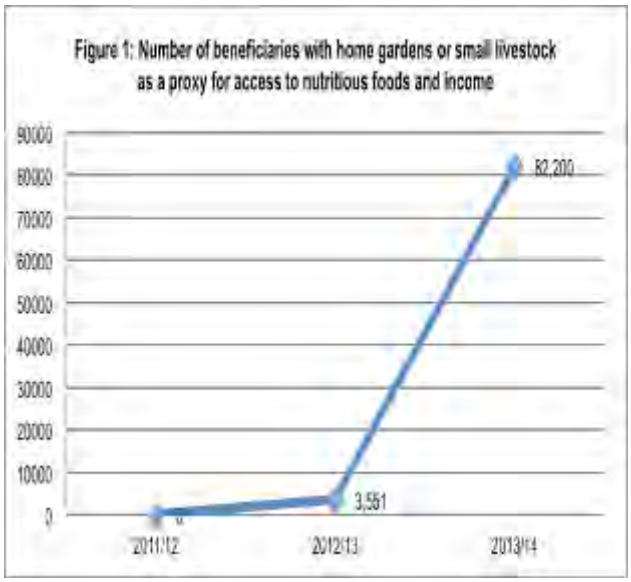
a. The assessment team faced a challenge in tracking the budget items due to the absence of a specific budget line item for nutrition. Nutrition activities are budgeted under different lines depending on the ministry. The program will have to continue working with the district teams to ensure that in subsequent years, there is clarity in the line items budgeted for nutrition for easy tracking.
b. NNS has ensured demarcation of interventions that are mandated for other sectors, such as health, water, agriculture and education. Guidelines for Councils for preparation of a nutrition plan and budget stipulates what each sector can do to improve nutrition and avoid duplication. However, patterns of budget allocation showed that the councils were not consistent in identifying and prioritizing multi-sectoral nutrition interventions in their respective sectors.
c. NNS emphasize the importance of the participation and involvement of stakeholders, and it has clearly stated their role in its implementation. Council plans and budgets that were assessed by the evaluation team did not reflect activities and resources from existing nutrition partners in the council. MBNP have to continue supporting Councils budget meetings; while promoting an actively participation of other development partners and CSOs.
d. Only District Planning Officers, who are responsible for the coordination of planning and budgeting processes in district councils were informed, other staff even the DNuOs did not seem to be aware of the allocated budget for nutrition.

3-4 Increased Consumption of Nutritious Food at Household Level

The interventions under this result area (Sub –IR 5.1) were designed to enable the community members particularly women and children to continuously access diversified and quality foods through promotion of agriculture and nutrition linkages, as well as investments in nutrition-friendly agriculture programs (horticulture, small livestock) and food preservation and processing. This entailed increasing community and household production of staple and quality food such as fruits, green and yellow vegetables, and animal proteins through the adoption of household gardening, fish and small livestock keeping such as poultry and rabbits. Activities will also engage smallholder farmers learn food preservation and processing techniques.

3-4.1 Agriculture and Nutrition Linkages

The extent to which interventions have contributed to increased consumption of nutritious food by women and children at household level, were tracked by monitoring the number of beneficiaries with home gardens or small livestock as a proxy for access to nutritious foods and income. Overall sub IR 5.1 was implemented with improved progress annually and at the time of MTE the program had reached a total of 82,200 beneficiaries (MBNP Annual Report, October 2013-September 2014) as it is depicted in Figure 1. This is an increase of 137% from the annual target of 34,650. These include people who adopted vegetable gardening aiming to increase the diversity of household diet through production and consumption of nutritious vegetables and the keeping of small livestock for domestic consumption to enhance consumption of iron rich source of diet.



The implementation of planned program activities attained the intended achievements. Following the provision of education on food accessibility and diet diversification, demonstration plots comprising horticultural crops and small livestock are continuously being established. Community groups in 135, (25% more than 126 targeted) were mobilized to establish and manage integrated demonstration plots at ward level. The regional assessment indicated that Morogoro region managed to establish 25% (45 instead of the planned 36) more demonstration plots than the planned target; while the other two regions Manyara and Dodoma reached all (100%) targeted.

Community groups were mobilized to establish and manage integrated demonstration plots. The program CSOs grantees in all 10 districts and district extension workers were oriented to conduct Field Demonstration Days (FDDs) at each plot. The purpose of conducting FDDs was to improve food preparation techniques at household level in order to ensure that beneficiaries get quality-diversified

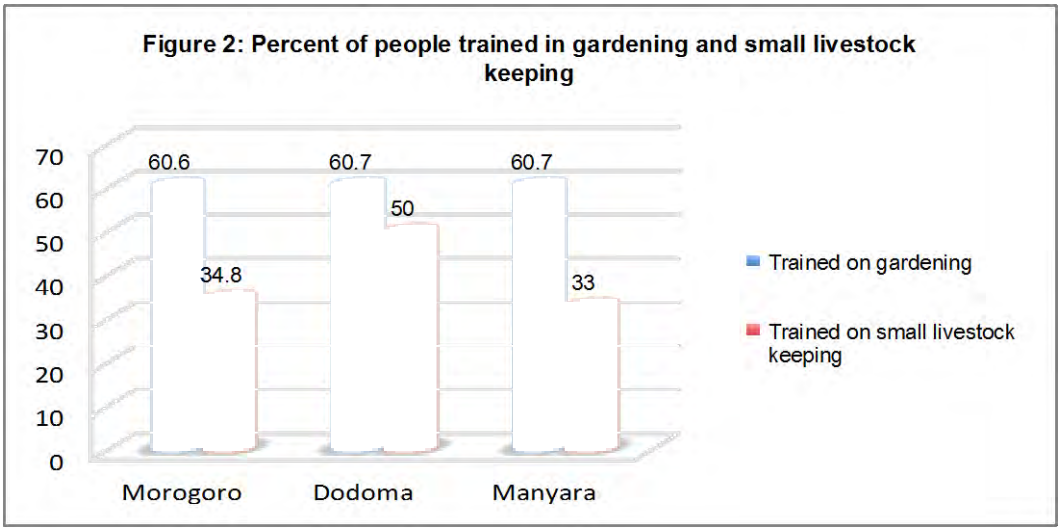
meals and complementary foods. By the time of MTE, a total of 7,420 (1,297 males and 6,123 females) members of Peer Support Groups (PSGs) indicated to have had attended at least one field demonstration day. People who attended the demonstration days were oriented on how to prepare diversified complementary meals and vegetables without depleting their nutrients. Moreover, beneficiaries also received a practical training on: (i) basic food preservation techniques, and (ii) vegetables production ad small livestock keeping in their own households. CHWs and HBCPs were also trained together with PSG members.

In addition to the above-mentioned trainings, MBNP in collaboration with 'Pamoja Tuwalee' project delivered skills training on income generation activities (IGAs) to a total of 1,200 PSG members. The establishment of Savings and Internal Lending Cooperatives (SILC) was also part of this training. The later was aimed at enabling beneficiaries to increase household income and access to nutritious foods through money saving and borrowing, and investing in gardening and small livestock keeping in a more enterprising manner.

3-4.2 Gardening and Small Livestock Keeping

Figure 2 provides analysis of MTE field data, which also confirms the positive performance as about 61% respondents in all three regions reported to have received training on gardening, which was delivered by MBNP.

Figure 2: Percent of people trained in gardening and small livestock keeping



When asked whether or not the household has established a home garden as a result of the training received, about a third said yes, while the other two thirds were yet to adopt home gardening. With regard to the type of produce in the adopted home gardens, MTE data indicated that 52% have grown Chinese cabbage, followed by 48% Sweet potato leaves ("Matembele"), 27% Amaranths, 24% Pumpkin leaves, Tomatoes 24%, and the least 5% have grown carrots, while 7% have grown other vegetables and fruits such as "mnavu" (local greenish vegetable) and pawpaw fruits. Further, the program supplied a variety of seeds for initiation of demonstration plots, and PSG members were to organize themselves to manage and utilize the produce to enable households obtain food, income and seed for replanting as well as to support the scaling up of home gardening. The management was

poorly done, leaving most demonstration plots unproductive and most PSG members with no supply of seed for scaling up.

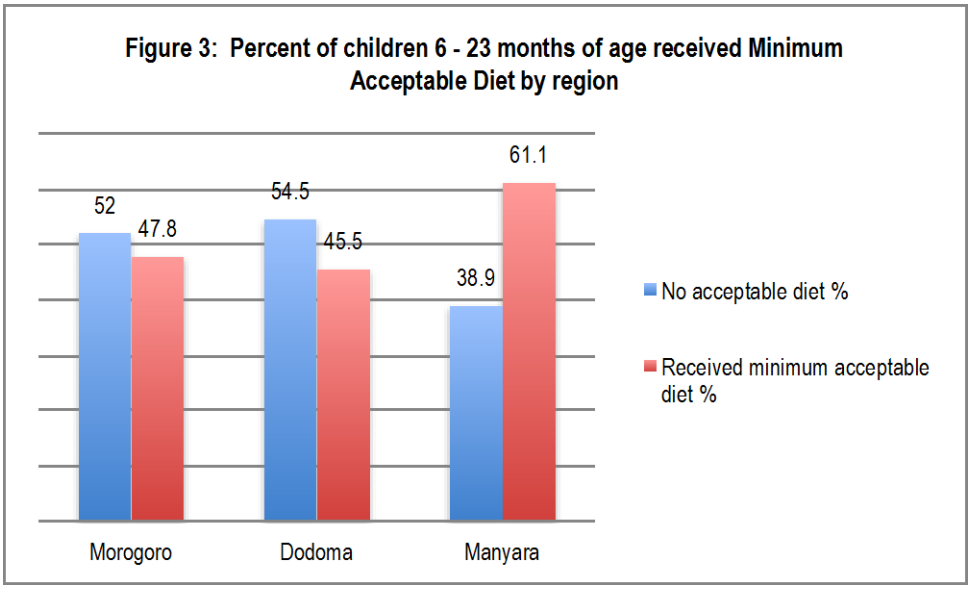
At household level, the assessment showed that the majority (79.7%) was keeping poultry, followed by 15.9% who keep goats and the remaining 4.3% have started to raise rabbits. MBNP support has positively influenced intensive poultry keeping from the traditionally practiced open grazing in the program villages. Zero grazing not only reduces the chance for chicken to be stolen by people and/or hawks, but also minimize chances for the chicken to destroy gardens within the house compound and neighbors. The program introduced and supplied high breed of Rabbits, which quickly reproduce, easy to maintain and rich in iron. Those PSGs, which managed to allocate an appropriate, were supported by the program to construct improved cage and supplied with two rabbits (male and female). This intervention had been recently introduced; as a result very limited community groups (PSGs) had adapted rabbits keeping by the time of the survey.

Importantly, PSG members indicated willingness to adopt home gardening but reported lack of access to inputs and seasonal water supply to be a challenge. All 55 (100%) CHWs/HBCs met and the program staff confirmed this. In this realization, MBNP introduced "*sack gardens*" a simply and affordable investment that require less amount of water to grow vegetables. Sac gardens use wastewater from the home kitchen to ensure regular supply of nutritious vegetables for a household. CHWs and HBPCs met during the MTE field data collection, reported an increased trend in the adoption of this home gardening technology. MTE team members also found sack gardens in some of the visited households. Further, district staff and health facility workers (HFWs) interviewed commended this technique. Nonetheless, the obtained data could not support the analysis of the magnitude of production that could be apportioned for consumption and sales so as to generate income. This may require a specific study.

3-4.3 Children Dietary Diversification

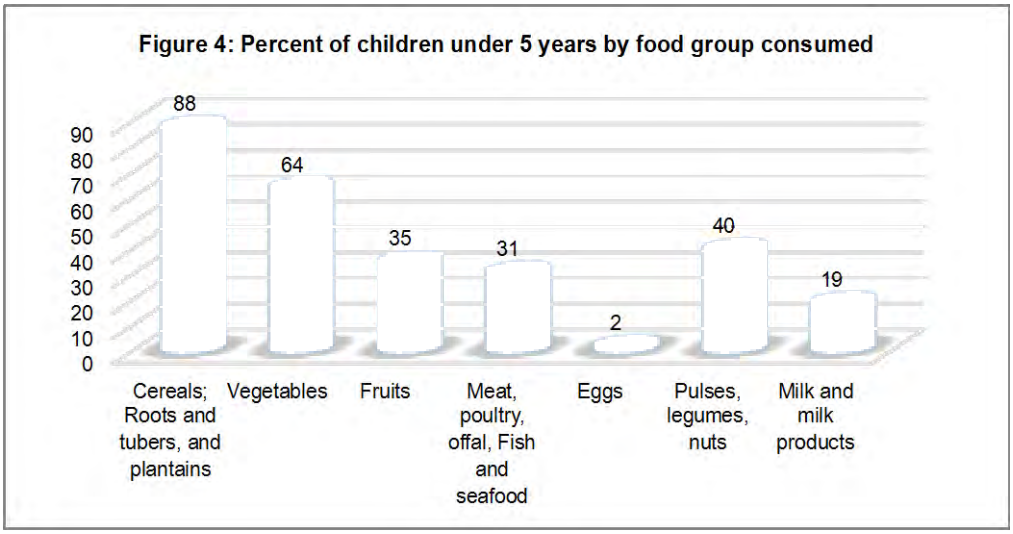
Data collection tools for dietary diversification for children and women were developed by MBNP and adopted by the consultant. The statistical analysis has been done using the WHO IYCF operation guidance document, and WHO document: Indicators for assessing IYCF practices, Part 2, Measurement as reference. Minimum dietary diversity for children measures the proportion of children 6-23 months of age who received a minimum acceptable diet (MAD), apart from breast milk. MAD indicator measures both the minimum feeding frequency and minimum dietary diversity as appropriate for various age groups. If a child meets the minimum feeding frequency (MFF) and minimum dietary diversity for their age and breast-feeding status, then they are considered to receive a MAD[5]. According to the results presented in Figure 3, out of 63-breastfed children age 6-23 months, about 50.8% were given foods from four or more food groups in the 24 hours preceding the survey, and 49.2% were fed the minimum number of times in the previous 24 hours.

[5] *Proportion of children 6–23 months of age who receive foods from 4 or more food groups. Consumption of any amount of food from each food group is sufficient to "count", i.e., there is no minimum quantity, except if an item is only used as a condiment.*



This MAD results show an increase by 19% when compared with the findings of the 2010 TDHS, which showed that 32% of 6-23 months of age children received foods from 4 or more food groups. This performance could be attributed to the awareness created and educational activities by the program on complementary feeding. Nonetheless, regional analysis showed that the proportion of children who received MAD in Manyara region (61.1%) was higher than in the remaining two regions of Morogoro (47.8%) and Dodoma (45.5%).

Furthermore, the analysis of children under five years of age by type of foods consumed in the day or night preceding the interview (Figure 4) reveals that 88% consumed foods made from grains, 64% ate vegetables and 35% fruits.



The children are also fed protein-rich foods: legumes and nuts (40%) and 31% are meat, fish, and poultry. Other foods such as milk and other milk products including yogurts were consumed by 19% of children and only 2% of children ate eggs. The use of infant formula and fortified baby foods was observed to be minimal in the program ZOI. The regional analysis of food groups consumed by

children under 5 years per region shows a similar pattern. The majority of children were fed with cereals, roots and plantains; while very few ate eggs. More (41%) children in Manyara region consumed milk and milk products as compared to Dodoma (12%) and Morogoro (9%).

3-4.4 Women Dietary Diversity

Dietary diversity is a key dimension of a high quality diet with adequate micronutrients content; and thus, important in ensuring the health and nutrition of both women and children. Women of reproductive age are at risk for multiple deficiencies, which can jeopardize their health and ability to care for their children and participate in income generating activities.

Tools to collect information for assessing the dietary diversification for women was adopted from MBNP and data collection process adhere to FtF M&E guidance series Volume 8: Population-based survey instrument for the FtF zone of influence indicators. Women dietary diversity is measured through an indicator on mean number of food groups consumed by women of reproductive age. According to TDHS, this indicator aims to measure the micronutrient adequacy of the diet and reports the mean number of food groups consumed in the previous day by women of reproductive age (15-49 years). Nine food groups are used to calculate this indicator, thus the higher the mean the better. Table 1 shows that women in the program ZOI consume 4.1 food groups, which is an improvement from the 2010 TDHS mean value (3.61). The deviation between the three program implementing regions is not significant.

Table 1: Mean number of foods groups consumed by women of reproductive age (15 - 49) by region

Morogoro	Dodoma	Manyara	Total
Mean	*Mean*	*Mean*	*Mean*
4.4	3.7	4	4.1

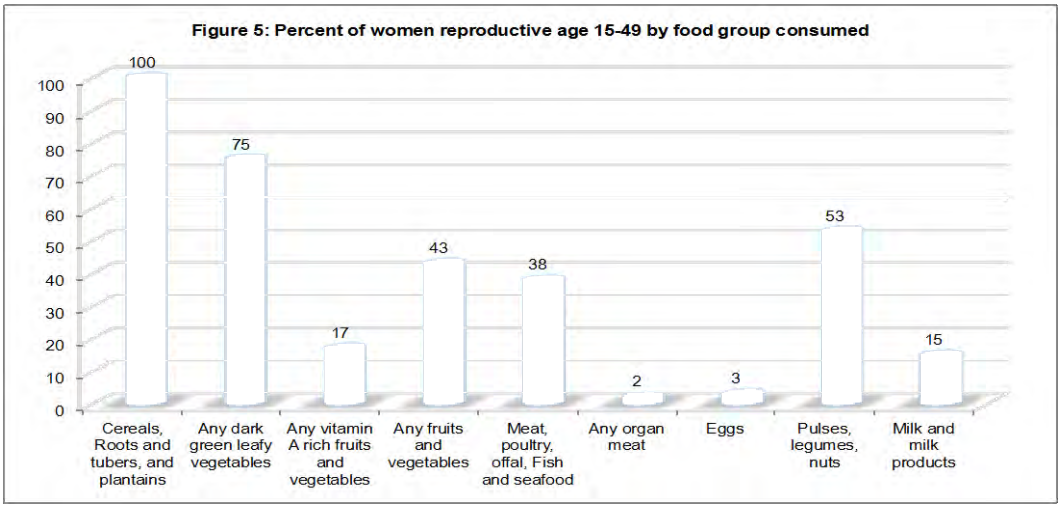
3-4.5 Food Quantities and Quality

MTE assessed the type of foods consumed by mothers of children aged below five years (who are also women on reproductive age 15-49) during the day and night preceding the interview. The quantity and quality of food that pregnant and lactating mothers consume influences their health and that of their children. The analysis in Figure 5 shows that all (100%) women respondents ate foods made of roots and tubers (which complement cereals as a source of energy) in the day and night preceding the interview, more than 2010 TDHS results (32 percent). About 53% of women consumed protein-rich foods such as legumes, showing an increase of 15% from results of the 2010 TDHS (37%) and a total of 38% consumed meat/fish/ shellfish/poultry/eggs that is a good source of iron. These findings indicated improvement from the 2010 TDHS results (35 percent). Milk and milk products including yogurt was consumed by a small proportion of women (15%). Generally very few (3%) women ate eggs.

Figure 5 also indicate that the percentage of women reporting to consume Vitamin A-rich fruits and vegetables is low at 17%, and results from the 2010 TDHS reported very high use (62 percent of

women). Similar results were found by MTE in regional results, in Morogoro 24%, Dodoma 13% and Manyara 11% ate vegetables and fruits rich in Vitamin A. On the other hand, milk and milk products were more consumed by women of reproductive age in Manyara Region (33%) as compared to Dodoma Region (13%) and Morogoro Region (5%). Only 2% of women in the ZOI ate any organ meat, despite their importance as rich source of vitamin A.

These findings revealed the need to provide more income generating knowledge and skills development support to PSGs with the objective of increasing household income and in return improving food diversification.



3-4.6 Iodization of Household Salt

The fortification of salt with iodine is the most common method of preventing iodine deficiency. Iodine deficiency has serious effects on body growth and mental development. According to the WHO, a country's salt iodization program is considered to be on a good track (i.e. poised to attain the goal of eliminating iodine deficiency), when 90% of the households are using iodized salt. In Tanzania the compound used for fortification of salt is potassium iodate (KIO_3). Fortified salt that contains 15 parts of iodine per million parts of salt (15 ppm) is considered adequate for the prevention of iodine deficiency (ICCIDD, UNICEF, and WHO, 2001).

The analysis of tested salt for iodine 99.4% of visited households using the '*iodine rapid test kit*' in Table 2 shows that about 53.9% of households were using salt that is adequately iodized (15+ ppm), and 15.8% are using salt that is inadequately iodized (<15 ppm), thus indicating that 69.7% of the households are using salt that has some iodine. The availability of iodized salt shows a decrease of 12.3% when compared with the findings of the 2010 TDHS (82%). These MTE results are more comparable to the findings of TDHS of 2004-2005, which showed that 73% of households were using iodized salt.

Table 2: Presence of iodized salt in household, MTE for MBNP 2014								
PPM	Region							
	Morogoro		Dodoma		Manyara		Total	
	N	(%)	N	(%)	N	(%)	N	(%)
0 PPM (No Iodine present)	14	8.5	31	18.8	4	2.4	49	29.7
Under 15 PPM	11	6.7	13	7.9	1	0.6	25	15.2
15 PPM or more	40	24.2	9	5.5	40	24.2	89	53.9
No edible salt at home	1	0.6	0	0	0	0	1	0.6
Salt was not tested	0	0	1	0.6	0	0	1	0.6
Total Households tested	66	0.6	54	32.7	45	27.3	165	100

Use of adequately iodized salt is correlated with local availability of salt. MTE results show that in Dodoma Region, households are more likely not to use adequately iodized salt (13.7%) compared with less available local production, Morogoro and Manyara (30.6% and 24.8%, respectively). Further observation done by the MTE team suggests that most of the tested salt manufacture in Dar es Salaam, Tanzania lacked iodine; but salt that is manufactured in Lindi region in Tanzania and the imported salt from Kenya contains the recommended levels of iodine. The availability of locally produced salt and limited awareness of people on the effects of iodine deficiency in body growth and mental development might have contributed to these results.

Iodine deficiency has adverse effects on all population groups, but women of reproductive age are often the worst affected. For example, iodine deficiency is related to adverse pregnancy outcomes including abortion, fetal brain damage, congenital malformation, stillbirth, and prenatal death. For this reason, use of iodized salt by women of reproductive age receives emphasis. On one hand, MBNP should create the community awareness on the effects of using local salt, which has not been fortified with iodine; and on the other hand, share these findings with TFNC a national structure with food fortification mandate for further enforcement actions.

3-5 Knowledge, Attitudes, Gender Norms and Social Support

The interventions under this result area (Sub –IR 6.1) were designed to improve the knowledge, attitudes, gender norms and social support for specific maternal and child nutrition practices through the scaling up of social and behavior change to improve infant and young child feeding practices. This includes exclusive breastfeeding, complementary feeding, hand washing and the importance of micronutrient supplementation for prevention of micronutrient deficiencies. This objective would have been achieved through targeted nutrition outreach and behavior change activities that focus on the pregnant and lactating mothers and children under-five years of age.

3-5.1 Nutrition Education and Communication Interventions

The activity implementation under this objective has resulted into significant achievements. The program developed and operationalized nutrition education and communication program, which led on behavior changes among the majority of women as targeted. This has in return improved nutritional status of children and women as presented in the previous section 3.4 of this report.

The Tanzania National Nutrition SBCC Strategy, 2013-2018 that was developed with the program support, include SBCC framework to support the linkage between agriculture and nutrition programming. The framework that indicates key household actions cycle from discussion on gardening and livestock keeping through increased household access, to diversified nutritious foods and benefit sharing has been compiled in form of SBCC kits. A total of 2,366, which is 79% of the targeted 3,000 have been procured and disseminated in 2,045 program-implementing villages. SBCC kits are multimedia, containing print and audio communication materials. MTE team witnessed the use of SBCC kits by CHWs and HBCs during PSG meetings to promote nutrition social and behavior change in all visited communities. The usefulness of SBCC Kit was also confirmed in facilitated focus group discussions (FGDs) being a way that PSG members became aware and gained knowledge on nutrition aspects on children, pregnant and lactating women, specifically referred to as “SIKU 1000”

FGD participants further unanimously mentioned radio to be the most preferred media communication channel over the print as effective in creating people’s awareness and stimulating dialogue regardless of the high illiteracy rate and low levels of education amongst among household members. Further, the program also estimate (MBNP, 2nd Year Annual Report) that a 3-day radio campaign to launch “SIKU 1000” had successfully reached about 2,663,153 people with information on key nutrition behaviors and facts about *SIKU 1000* of a human life. These findings were also reported by other National surveys on development communication and beneficiary impact assessment studies done on media communication channels.

Likewise, MBNP had intensively promoted nutrition education with an objective of influencing behavior change on exclusive breastfeeding for children under six months and appropriate complementary feeding practices from 6 to 23 months has been developed and disseminated. Behavior change messages and appropriate job aids to inform and support health workers, extension workers and other

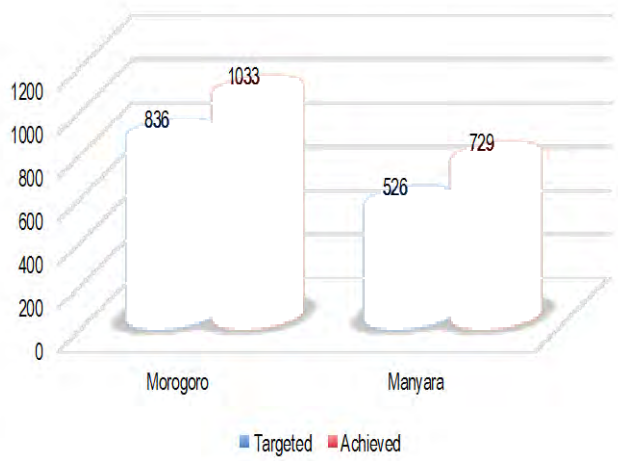
key audience groups regarding the importance of consuming foods rich in iron and taking iron supplements during pregnancy are in place. Sensitization activities were held since the inception of the program. For example "*Maziwa* SMS text message campaign" that provided information on breastfeeding in which about 55,510 nutrition messages were sent out to a total of 7,930 subscribers.

Use of community theatre art groups to sensitize community on essential nutrition actions is positive. By the end of September 2014, about 116 community theatre groups with an approximate total of 2,220 (of which 34.9% are male and 65.1% female) artists have been mobilized to promote community awareness and education on Maternal and Child nutrition, with a specific focus on the importance of "*SIKU 1000*". MTE team met and consulted with community theatre art group members (in the photo) during field data collection exercise in Peko Misegese village, Mvomero district in Morogoro region. These theatre art performances were reported to be useful in the promotion of nutrition messages at the community and also at the national level during the breastfeeding week celebrations, Vitamin A campaigns and field demonstrations days.

The promotion of education and behavior change, particularly focusing on infant and young child feeding (IYCF), maternal nutrition, as well as water supply sanitation and hygiene has been implemented as planned. Information, Education and Communication (IEC) and Behavior Change Communication (BCC) materials have been repackaged, reproduced and disseminated to health facilities, CHWs, and PSG members.

The later have also received training on maternal anemia and IYCF. Figure 6 shows that in Morogoro region the training had reached more (124%) PSG members 1033 out of 836 as targeted, and similarly in Manyara (126%) that is 729 against the targeted 579 people.

Figure 6: Number of care groups trained on maternal anemia and IYCN



The extent to which interventions have contributed to improved knowledge, attitudes, gender norms

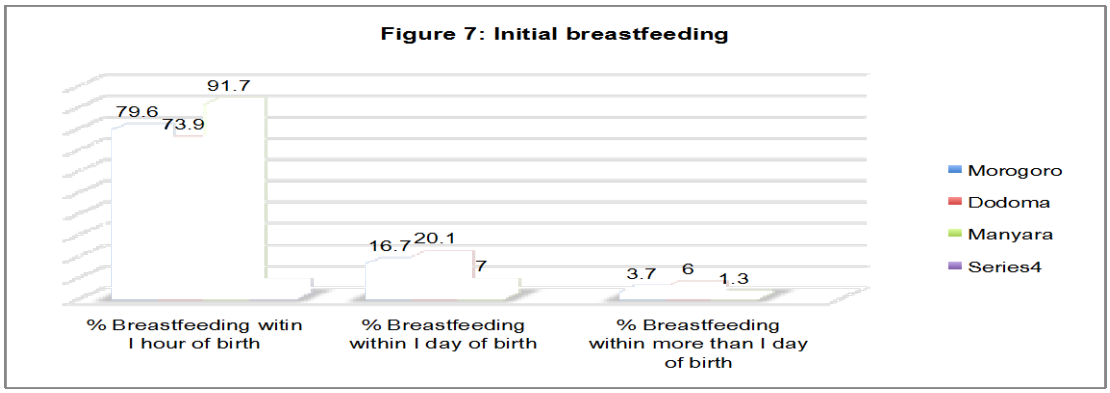
and social Support for specific Maternal and Child Nutrition practices are measured through an indicator of "number of people reached through community awareness supported by MBNP". The indicator measures people reached through radio programs, performances by dance and drama groups, SMS campaigns and demonstration days. The cumulative estimation of the Sub –IR 6.1 performance on people reached through community awareness supported activities by the program since its onset has not been included. The data provided an overall skewed performance as it raises a red flag because of the implementation gaps in 2011/12 and 2012/13 as indicated in MBNP, Annual Reports; and the over achievement in 2013/14. According to the Annual Report, October 2014, the number of people reached by the program has increased by 322.7 times between 2nd and 4th quarters from 216 to 67,900 people, respectively. Another limitation was posed by the lack of data on people reached through electronic media channels. The reported figure covers people who were directly reached by program activities. This unrealistic performance may be attributed to either under targeting, or data quality issues. This requires further investigation, which is beyond the scope of this MTE.

3-5.2 Infant and Young Feeding Practices

The assessment of people's specific knowledge and practice (KAP) on specific nutrition behaviors and gender norms towards maternal and child nutrition indicated positive change as a result of program interventions. Recommended feeding practices, which were also promoted by MBNP, include early initiation of breastfeeding, exclusive breastfeeding during the first six months of life, continued breastfeeding up to two years of age and beyond, timely introduction of complementary feeding at age six months, and frequent feeding of solid/semisolid foods. The indicators, which measure the quality of infant and young child feeding practices, are also included.

3-5.2.1 Early Initiation of Breastfeeding

It is recommended that children be fed colostrum immediately after birth and continue to be exclusively breastfed even if the regular breast milk has not yet let down. The first liquid to come from the breast, known as colostrum, is produced in the first few days after delivery and provides antibodies for natural immunity to the infant. Figure 7 shows a variation in the initiation of breastfeeding within one hour of birth by region. Initiation of breastfeeding within one-hour was higher (91.7%), in Manyara region, which is comparable with the results of the 2010 TDHS (92.9 percent). In Morogoro and Dodoma regions, a total of 79.6% and 73.9% respectively, were breastfed within one hour after birth. These findings show an increase from 2010 TDHS results of 66.3% percent and 42.8% in Morogoro and Dodoma regions, respectively. Further, the assessment revealed that less than a half of all eligible women in all three-program regions had their milk flowing the first time they put their infants to the breast.



3-5.2.2 *Exclusive Breastfeeding*

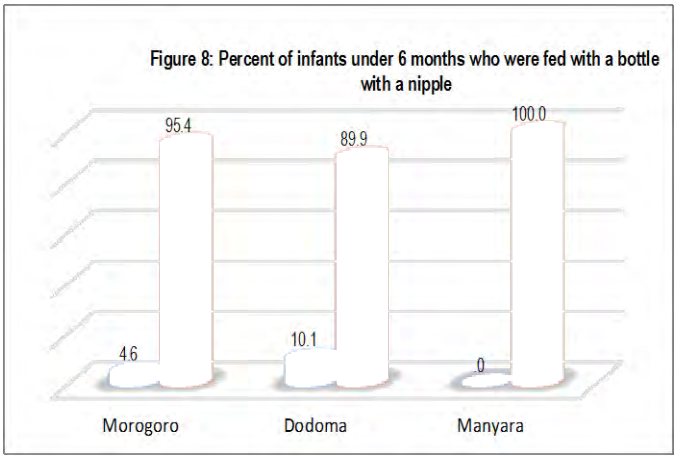
UNICEF and WHO recommend that children be exclusively breastfed (no other liquid, solid food, or plain water) during the first six months of life (World Health Assembly, 2001). Introducing breast milk substitutes to infants before six months can contribute to breastfeeding failure. Substitutes, such as formula, other kinds of milk, and porridge, are often watered down and provide too few calories.

The indicator that is used to measure this is "the proportion of infants 0-5 months of age who received breast milk only". Table 3 shows that in the program ZOI, exclusive breastfeeding for the first six months is widely practiced, about 71% of 51 infants under six months were exclusively breastfed in a day preceding the survey. This is an improvement compared to the prevalence shown by the 2010 TDHS, which was 50%. It is important for an infant to breastfeed frequently as this improves milk production. The analysis showed that all 132 (100%) out of 249 children under age of six months were breastfed 24 hours preceding the survey.

Table 3: Number and percent of children 0 - 5 months who are exclusively breastfed region

Status	Morogoro		Dodoma		Manyara		Total	
	N	*(%)*	*N*	*(%)*	*N*	*(%)*	*N*	*(%)*
Ate food	11	42	0	0	2	17	13	25
Breast fed only	14	54	13	100	9	75	36	71
Don't know	1	4	0	0	1	8	2	4
Total	26	100	13	100	12	100	51	100

According to the WHO and UNICEF recommendations for optimal breastfeeding, children under age six months need to be breastfed at least six times during the 24 hours. Findings from this assessment revealed that during the night (between sunset and sunrise) 28% of children under age of five were breastfed six times or more; during the daylight about 72% were breastfed six times or more which meets WHO and UNICEF recommendations for optimal breastfeeding.



Use of a bottle with a nipple: The regulations regarding breast milk substitutes in Tanzania discourage the use of bottles with nipples. The use of a bottle with a nipple, regardless of the contents (breast milk, formula, or any other liquid), requires hygienic handling to avoid contamination that may cause infection to the infant. The survey data (Figure 8) shows that 4.6% (12 out of 249), which is almost similar to findings in 2010 TDHS where 5% of infants under six months are fed with a bottle with a nipple. In Manyara region no infant was fed with a bottle with nipple.

3-5.2.4 *Complementary Feeding*

After six months, a child requires adequate complementary foods for normal growth. Lack of appropriate complementation may lead to malnutrition and frequent illnesses, which may lead to death.

The analysis of collected information showed that complementary feeding starts early in the program area. About 25% of children below six months of age were given complementary foods.

It is recommended that complementary foods (solid or semisolid foods fed to infants in addition to breast milk) should start being fed immediately after the age of 6 months. This is because, at this age, breast milk alone is no longer sufficient to maintain the child's optimal growth. The amounts of feeds are increased gradually from 6 to 23 months, which is the period of transition to eating the family diet. The analysis of collected data on types of foods consumed in the 24 hours preceding the survey by breastfeeding children under age 5 revealed that all (100%) of the breastfed children age 6-23 months received solid or semi-solid complementary foods in addition to the breast milk.

MTE assessed "the percentage of children age 6-23 months living with their mothers, who are fed four meals or more per day" according to IYCF feeding practices based upon number of food groups and times they are fed during the day or night preceding the survey. MTE finding on this indicator is depicted in Table 4, showing less than a half (44%) ate four or more meals as recommended in the 24 hours preceding the survey, and the other 56% were fed the minimum times per day in the previous 24 hours. The regional analysis indicated that the proportion of breastfeeding children age 6- 23 months who are given a variety of foods at least four times daily is more in Manyara Region (68%), followed by Morogoro Region (36%) and lastly, Dodoma Region with only a quarter of children eating recommended meal frequencies.

Table 4: Percent of breast fed children 6 - 23 months who received 4 meals per day by region

Meal frequency	Morogoro	Dodoma	Manyara	Total
	%	%	%	%
1	6	13	0	6
2	18	33	14	21
3	39	29	18	29
4+	36	25	68	44

Minimum Feeding Frequency (MFF) for breastfed children was also assessed. MFF is considered to be two or more feedings per day of solid, semi-solid or soft food groups other than breast milk in the case of infants 6-8 months, and at least three times per day in the case of children 9-23 months. A total of 15 children age between 6-8 months were met during the MTE data collection. The assessment of MFF for infants 6-8 months (Table 5) shows that the majority (87%) of children age 6-8 months do receive meals as per recommended MFF; while only a few proportion (13%) ate only once per day in the 24 hours preceding the survey.

Table 5: Percent of breast fed children 6 - 8 months who received 2 or more meals per day by region

Meal frequency	Morogoro	Dodoma	Manyara	Total
	%	%	%	%
1	13	50	0	13
2+	88	50	100	87

The assessment in Table 6 reveals that out of 70 children aged between 9-23 months, 77% received meals as per recommended frequency in the 24 hours preceding the MTE and the other (23%) ate once or twice per day. According to the regional assessment, the majority (91%) of children age between 9-23 years in Manyara Region ate three or more meals (the recommended frequency), followed by Morogoro Region (84%) and lastly Dodoma Region (55%). Stakeholders met including CHWs, HBCPs, HFWs, members of DNTF suggested the need for a more intensive promotion of education and SBCC on IYCF to accelerate changes in nutritional behavior and practice in the community.

Table 6: Percent of breast fed children 9-23 months who received 3 or more meals per day by region

Meal frequency	Morogoro	Dodoma	Manyara	Total
	%	%	%	%
1	4	9	0	4
2	12	36	9	19
3+	84	55	91	77

3-5.3 Hand Washing and Hygiene Practices

The program introduced the use of tippy tap technology at some demonstration plot sites and promoted hand wash as a good hygiene and sanitation practices. According to the annual program reports, a total of 150 tippy taps were established near demonstration plots (in the photo), with Morogoro region establishing 24 (67%) more units. However, the adoption of tippy taps at the household level has been slow. The assessment indicated that about 38% out of the 179 respondents were aware of the hand washing method; while the majority (62%) remained unaware. For those who were aware confirmed the program to be a source of their information. The regional data showed a similar pattern of findings, where less than a quarter of people in all three regions seemed familiar with tippy taps. Hygiene practices including the community adoption and use of tippy taps need to be intensively promoted through the program supported community awareness activities.

Further, assessment of the hand washing practice by breastfeeding women revealed that most understand the importance and have used soap to what their hands at least once within 24 hours preceding the survey. MTE findings showed 98% in Manyara Region, followed by 96.7% in Dodoma Region and 82.6% in Morogoro region. Generally, the analysis of responses indicated that a majority (90.7%) of household members does wash their hands with after going to the latrine, and about 5%

reported to use soap anytime they use their hands to do something. Regional statistics (Table 7) revealed the same pattern. The majority between (85-95%) of the breastfeeding women in the three regions washed their hands with soap after using the latrine. The importance of promoting hand washing was also emphasized by HFWs met, especially due to the scarcity of water and lack of latrines in some areas.

Table 7:Percent of women 15-49 years who wash hands by soap and Region

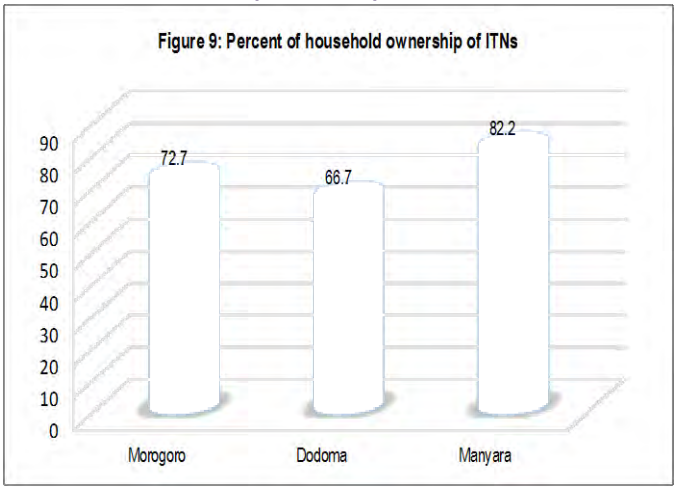
Reason for hand wash	Morogoro	Dodoma	Manyara
	%	%	%
After going to the latrine	85.7	93.2	93.6
After washing baby's bottom/changing diaper	17.9	15.3	12.8
Before preparing food	44.6	33.9	38.3
Before eating	42.9	30.5	36.2
Before feeding/breastfeeding baby	30.4	16.9	23.4
Any time	5.4	5.1	4.3
Other	14.3	20.3	23.4

3-5.4 Mosquito Nets for Malaria Prevention

Ordinary untreated mosquito nets provide limited physical barrier between mosquito and man and protection as they may still bite through the net or get inside the net following improper use. Mosquito nets treated with insecticides provide better and effective protection by keeping away mosquitoes as well as killing them. An insecticide-treated mosquito net also kills or keeps away other nuisance insects such as cockroaches, bedbugs, houseflies, fleas, etc.

The use of insecticide-treated mosquito nets (ITNs) is a primary health intervention designed to reduce malaria transmission in Tanzania. Distribution of long-lasting insecticide nets (LLINs) to children under 5 in Mainland started in late 2008 with a pilot project that was expanded region by region in May 2009. By the time of data collection for the MTE in November 2014, all regions including Morogoro, Dodoma and Manyara had experienced the distribution of LLINs to all children under 5 through health facilities. It is anticipated that widespread use of ITNs will reduce mosquito density and biting intensity. The MTE assessed the household possession and use of ITNs and LLINs by household members.

3-5.4.1 Ownership of Mosquito Nets



The majority (73.3%) of the visited households own at least one mosquito net. This MTE finding is a bit less than 75% result in 2010 TDHS. Of these 17.6% have at least one mosquito net, 23% own two nets and 32.7% have three or more ITNs. This has limited improvement in household ownership of mosquito nets can be attributed to the discontinued

distribution by the Government during the current year, the MTE team were informed by HFWs and district medical staff met.

In the program regions (Figure 9), ownership of ITNs/LLINs is more than 80% in Manyara region, followed by 72.7% in Morogoro, and 66.7% in Dodoma. The increase in ITN/LLINs ownership between 2010 TDHS survey and 2014 MTE is significant in Manyara (from 73 percent to 82.2%).

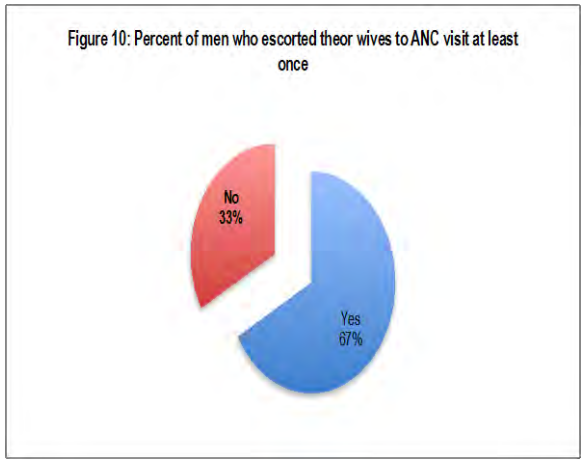
ITNs/LLINs are factory-treated net that do not require any further treatment, or a net that has been soaked with insecticide within the past 12 months. The analysis of responses revealed that 28% of the households had soaked or dipped their nets in a mosquito repellant over the last 12 months, which is below the WHO recommended practice. ITNs have to be retreated every 6 to 12 months, or even more frequently if the nets were washed.

3-5.4.2 Uses of Mosquito Nets

MTE asked respondents about the use of mosquito nets by household members the night before the day of data collection. The question was as follows: "Did anyone sleep under these mosquito nets (ITN) last night?" The analysis of responses on whether or not anyone in household had slept under ITN/LLIN a night proceedings the survey revealed about 60%. These MTE findings show an increase from the 2010 TDHS results (56%). Findings from regional data indicated more (75.6%) ITNs/LLINs use in in Manyara region, followed by 60.6% in Morogoro and then 46.3% in Dodoma.

3-5.5 Male Engagement in Maternal and Child Care

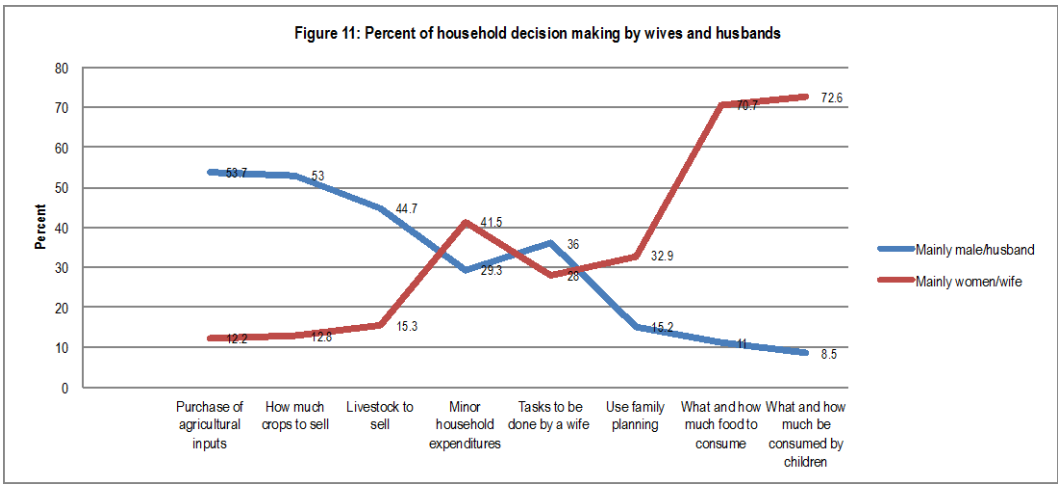
Sensitization efforts focusing on building constructive engagement of men in household nutrition and care related behaviors have been implemented. When asked a question: "Did you go with your wife in any of the ANC visit?" About two third (67%) of men interviewed said yes, while the remaining 33.1% answered no, they did not escort their wives (Figure 10). Regional data shows that less (16.2%) men in Manyara go to ANC visit with their wives, while in Morogoro more (29.2%) are willing to attend ANC with their wives during pregnancy.



During household visits, the assessment of men's knowledge on care was done by asking the following question: "*When a child is experiencing diarrhea, is she/he given less than usual to drink, about the same amount, or more than usual?*" The analysis of responses showed that less than a half (43.6%) men had a correct knowledge, the other 26.4% said about the same amount and 3.6% lacked knowledge. The later said children should drink less than the usual amount of water when having diarrhea. The above findings call for a need of MBNP to strengthen male participation in maternal and child nutrition education activities.

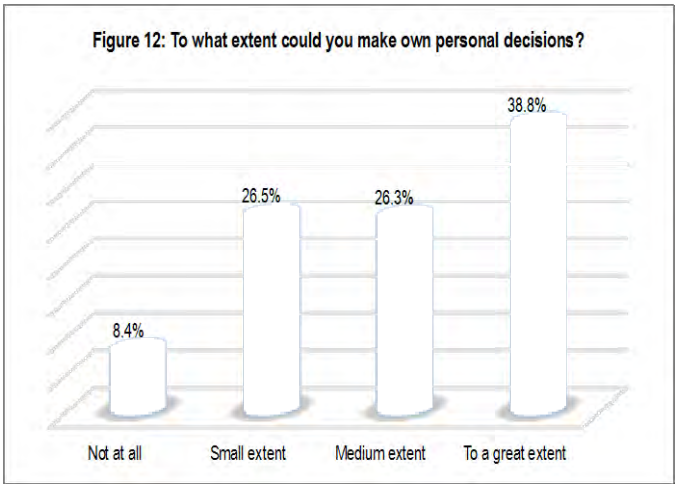
3-5.6 Women Empowerment towards Maternal and Child Care

The MTE used a household decision-making questionnaire to collected information on characteristics specific to women's empowerment through household activities and work. MTE respondents expressed their attitudes towards specific household decisions, such as who makes decisions about purchase of inputs for agriculture production, minor household expenditure, what and how much food to be consumed by women and for children. Figure 11 provides the analysis of responses, which indicated that the majority (72.6%) of women would mainly make decisions with regard to what food and how much to eat; 70.7% on what food be consumed by herself and children; and 41.5% on minor household purchases. More (53.7%) men decide on issues like what inputs for agricultural production to buy; when and how much crops to be taken to the market (53%), and livestock to be sold (44.7%).



Further, the analysis showed that in about a half (51.3%) of household's make joint decisions on whether or not to use family planning to space or limit birth; and to an extent (34.1%) of couples make joint decision on what kind of tasks do on a particular day. Rarely, someone else makes household decisions.

When women respondents were asked a question, *"to what extent do you feel you can make your own personal decisions?"* The assessment of responses (Figure 12) showed that at least 38.8% of women could to a great extent make specific household decisions; about 26% were able to make decisions to some extent. The remaining 8.4% would not make any decision at all.



3-6 Quality of Maternal and Child Health Nutrition Services

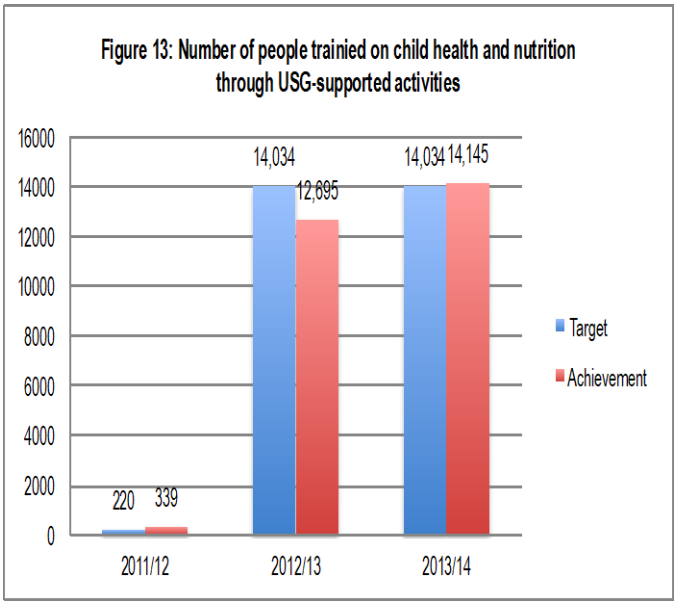
The interventions under this Sub –IR 7.1 were designed to improve the quality of Maternal and Child Health (MCH) nutrition services at health facility and community levels. The delivery of maternal and child nutrition services would be achieved through the strengthening of existing maternal health platforms that link facilities to communities and improve knowledge and attitudes of women on the importance of taking iron supplements during pregnancy as well as increasing consumption of iron-rich foods.

This would entail activities targeting nutrition outreach and behavior change that target pregnant and lactating mothers and children under-five years of age. It was also expected that improved knowledge and other capacities to provide nutrition education and SBCC programs would lead to positive attitude among practitioners that will in return facilitate change in behavior and practice of women and men towards maternal and child nutrition with a particularly emphasis on the first thousand days (SIKU 1000). Improved health of the mothers will lead to better nutritional outcomes for children as well.

The implementation of program activities made significant achievements. These are discussed below in three main sections: (i) Maternal and child nutrition education; (ii) Child nutrition services; and (iii) Maternal nutrition services.

3-6.1 Maternal and Child Health and Nutrition Education

Behavior change messages and appropriate job aids were developed to inform and support health workers, agriculture extension workers and other key audience groups regarding the importance of consuming foods rich in iron and taking iron supplements during pregnancy. Increasing access to and awareness on the importance of iron rich foods and iron supplements was promoted with the goal of reducing the prevalence of maternal anemia and improve the nutritional status of reproductive aged women. Since its onset the program has invested in delivery of train program to various actors with an objective of improving knowledge on maternal and child nutrition, with a particular focus on the improvement of service delivery. The extent to which planned interventions have contributed to the increased maternal and child nutrition education was tracked by monitoring the "number of people trained in child health and nutrition through USG-supported programs". Overall cumulative sub IR 7.1 performance met the



target as depicted in *Figure 13*. The performance was noted on the increased number of all trained individuals (health and non-health professionals) in year one and year three that reached 101% and 154% of the target, respectively. However, in year two (2012/13), the target was met by 90% only (MBNP Annual Reports). These include District Nutrition Team Facilitators (DNTFs), Health Facility Workers (HFWs), and non-health professionals including the extension workers, community leaders, CHWs and HBCs as well as community members.

3-6.1.1 District Nutrition Team Facilitators (DNTFs)

A team of District Nutrition Facilitators (DNTFs) has been established to support the scaling-up and cascading of nutrition activities in all 10 districts. DNTFs provide technical support and training in their area of jurisdiction. DNTFs comprise of about eight district staff from key sectors, making a total of 80 trained personnel. These eight individuals have successfully attended a four-day training using MBNP developed curriculum to enhance their technical knowledge on maternal and child nutrition, counseling and facilitation skills, as well as maternal anemia and childhood stunting. In addition, the training also focused on program set up, roles and responsibilities of key nutrition actors and the information management.

MTE conducted interviews with nine (9) randomly selected DNTF members (DNuOs, DRCHCOs, District Community Development Officers (DCDOs) or District Agriculture Development Officers (DADOs)/District Livestock Development Officers (DLDOs)). All (100%) have informed the MTE team that the four-day training was useful. The assessment also revealed that DNTFs have effectively collaborated with the program and CSOs in facilitating all organized trainings. However, they have requested for a follow up training on how to conduct supportive supervision on the implemented nutrition activities.

3-6.1.2 Health Facilities and Health Facility Workers

A total of 826 out of 841 (98.2%) health facilities benefited from the capacity building activities delivered by MBNP. The program focused on building the capacity to promote nutrition education and improve the delivery (in terms of quantity and quality) of nutrition services to pregnant mothers and children. MTE team found the Health Facilities addressing maternal anemia and childhood stunting through the provision of curative and preventive services that are targeting pregnant women, infants and children. Approximately 5,718 HFWs, medical doctors and nurse midwifery have been trained. The program successfully trained about eight (8) individuals in each District Hospital, four (4) in Health Centers and two (2) people in Dispensaries. The training was an eye opener. The consultation with trained HFWs also revealed that this was the first time to understand the importance of "*SIKU 1000*" in the life.

According to HFWs met, the training was very useful and it covered the following topics:

a. Maternal nutrition particularly focusing on counseling and communication to clients, evidence-based interventions to control maternal anemia, IFA supplementation, consumption of iron rich foods, iron enhancers and inhibitors, malaria control and de-worming, and importance of male involvement; and
b. Child nutrition with focus on childhood stunting, its critical pathways and interventions; caring

for and feeding a sick child, preventive care to reduce child infections, Vitamin A supplementation for under five years olds, de-worming, complementary breastfeeding, optimal breastfeeding, breastfeeding issues and good management, myths, misconceptions, beliefs and family influences on this regard.

Further, MBNP in collaboration with Regional and District Pharmacists and Vaccination Officers delivered training and coaching on quantification and ordering of essential safe motherhood supplies such as IFA, SP and de-worming drugs to a total of 80 HFWs (of which 23.7% were males and 76.3% female). The analysis of responses from the Health Facilities In-Charges met indicated the training was useful, and has resulted into the reduction of stock outs.

3-6.1.3 Extension Workers

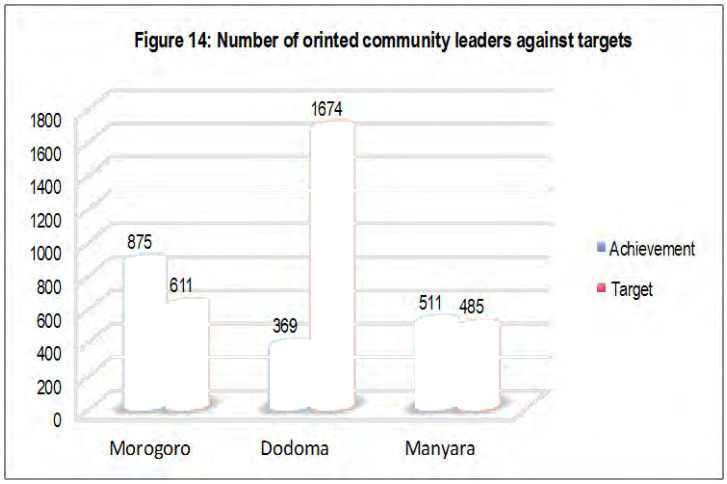
Extension Officers at ward level were oriented in the provision of supportive supervision of nutrition sensitive practices and introduced to the Care Group Model that has been set up at the community as a means to mobilize and engage with the beneficiaries. The analysis of information from Regional Program offices showed that about a half (49.5%) of the targeted 1,534 Extension Workers the have been trained over the three years period. Given the important role that Extension Workers are expected to play in the promotion of *agriculture-nutrition* linkages, MBNP has to ensure that planned targets for the training of Extension Workers are achieved.

MTE also found out that there is limited MBNP support to Extension Worker's agriculture-nutrition linkages. Only 2 or 10% out of 20 villages visited during MTE, reported to have received advice on how to start and maintain home gardening and small livestock keeping. The majority seems to lack willingness and motivation to participate in MBNP programs, and this was confirmed by CHWs during consultations. MBNP will have to collaborate with Councils in ensuring that exiting Extension Officers at ward and village levels effectively participate in the promotion of nutrition agenda and become accountable.

3-6.1.4 Community Leaders

In collaboration with CSOs and DNTFs, MBNP oriented ward and village leaders including Councillors, Ward Executive Officers (WEOs), Village Executive Officers (VEOs) and Villages chairpersons. The orientation focused on the magnitude and effects of maternal anaemia and childhood stunting, programs interventions as well as their expected role and responsibilities in promoting community nutrition education and behavioural change.

A total of 1,729 leaders have been oriented in the three regions over the last three years as shown in *Figure 14*. The regional comparison of regional performance indicates that in Dodoma Region only 22% (369 out of 1,674) leaders have been so far oriented,



which is less than the planned target. In Morogoro and Manyara regions the performance has surpassed the target by 43% and 5%, respectively. These findings clearly indicate a need for orientation of more community leaders in Dodoma region to support community mobilization. During FGDs, community members and CHWs reported that the usefulness of these leaders on y mobilizing community members to participate on PSG meetings which are organized with an objective of promoting nutrition education and positive change on related social behavioural.

3-6.1.5 Community Health workers (CHWs) and Home Based Care (HBCs)

The program has recruited a total of 2,283 CHWs and HBCs during the three years, who are in charge with the roll out of SBCC Kit. There are at least two trained CHWs and one HBC provider in each program village. CHWs and HBCs were appreciated for promoting community nutrition awareness, basis maternal and child nutrition education and SBC communication at community level through mobilization of Parent Support Groups (PSGs). CHWs/HBCs promoted the linkage between communities and clinical services.

The regional assessment of targets against achievements (*Table 8*) revealed that the recruitment and training target in Morogoro were fully met, while targets set for Manyara were met by 94%. In Dodoma region, analysis showed a performance of 70.6% (2422 out of targeted 3430).

Table 8:Number and percent of CHWs and HBCs recruited by MBNP in ZOI

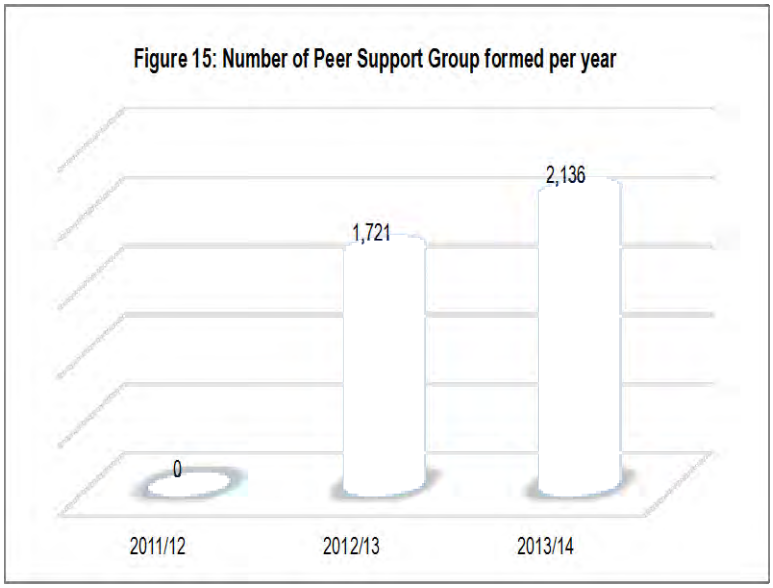
Type of Actor	Region	Target	Achievement	
			Number	%
CHWs	Morogoro	626	805	129
	Dodoma	1,296	553	43
	Manyara	326	307	94
HBC providers	Morogoro	313	315	100.6
	Dodoma	648	229	35
	Manyara	221	213	96

Source: MBNP Annual reports

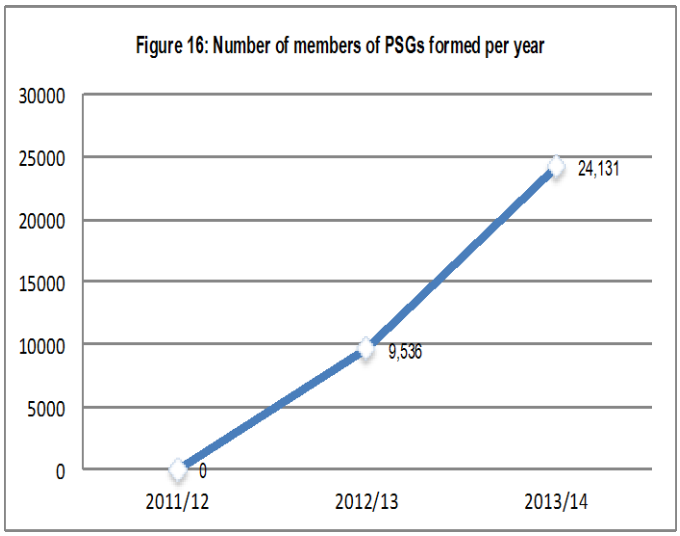
The analysis of responses from the interview that was conducted with 55 CHWs/HBCs (45% male and 55% female) indicated that the training received has equipped them with the understanding nutrition education and SBCC kit and skills to implement their expected roles and responsibilities. A total of 78% of the 55 interviewed CHWs/HBCs could mention key services they should deliver, which included the formation of PSGs, organizing meetings and using SBCC kits to promote basic nutrition facts and linking community members to health facilities to access clinical services. During MTE data collection some of the CSOs reported to experience increasing CHWs/HBCs dropout, however the magnitude was not established. The program may wish to establish the magnitude and implement a replacement plan.

3-6.1.6 Formation of Peer Support Groups

With the support of MBNP, CHWs/HBCs collaborated with CSOs and DNuOs to mobilize SIKU 1000 parents into Peer Support Groups (PSGs). PSGs mainly comprise of twelve (12) SIKU 1000 parents who would together learn and share experiences regarding pregnancy and childcare practices, and support one another in adopting good pro-nutrition practices and behaviours (*Figure 15*). The program has supported the formation of 3,336 PSGs with about 40,037 members. Regional assessment indicated the performance of 132% (17,619 members of PSGs against the target of 13,320) in Morogoro Region; followed by 193% (8749 against targeted 4522) in Manyara Region and managed to recruit 29% of 46,656 PSG targeted (MBNP Regional Office data, November 2014). The program team in Dodoma Region has to pay attention to the causes of the reported lower achievement rate.



According to the program records (Figure 16), the number of PSG members has increased significantly from zero in year 2011/12 to over 23,000 in the third year. Of these 33,667 PSG members, 60.5% were female and 39.5% were male. These results indicated that there are fewer men PSG members, as according to the Care *Group Model* that has been adopted each PSG would comprise of 12 members (6 men and 6 women). The objective was to enable holding sex specific as well as mixed group discussions on key behaviors, norms, cultural practices and other crosscutting gender issues.



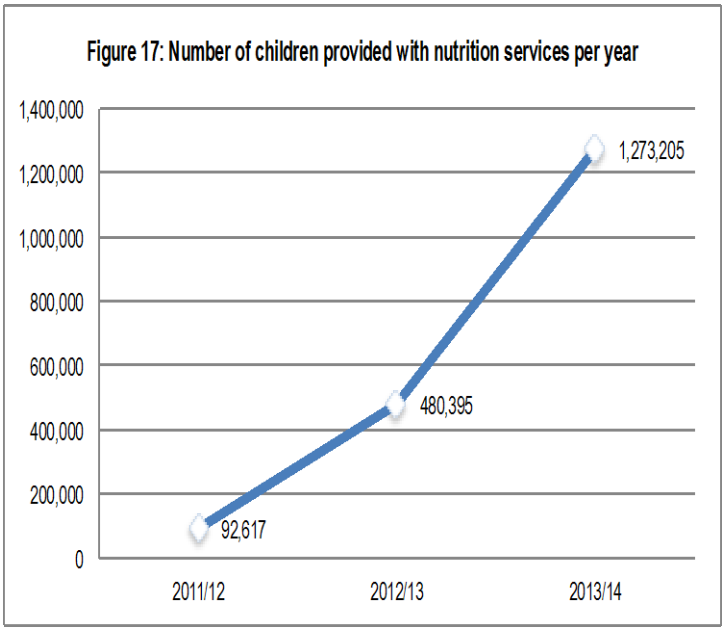
MTE commends the use of this model because it ensures the establishment of informal local networks. During the FGDs, members of PSGs expressed satisfaction with regard to the shared knowledge and learning on care for pregnancy, infants and children of age under 59 months. Education on "*SIKU 1000*" was highly appreciated by PSG members and also CHWs/HBCs during the conducted FGD sessions.

Moreover, the assessment revealed that SBCC Kit has very effective tools not only on awareness creation but also on stimulating community dialogue and influencing behavioural change. As indicated

in the previous section on this report, community members have increased knowledge on maternal and child nutrition; and households have adopted breastfeeding and complementary feeding practices as a result of the program effort. MTE carried an assessment of the effectiveness of communication channels in the SBBC Kits during the FGDs. The analysis of responses from 15 conducted FGDs showed that radio was the most effective channel, followed by the face-to-face. Prints such as leaflets and brochures seem to be the least preferred.

3-6.2 Child Nutrition Services

Trained health and non-health proffesionals provided nutrition services aiming at prevention of malnutrition and mitigation of poor nutrition outcomes to children and pregnant women. Some of the indispensable services provided at health facilities and community levels included provision of behavior change communication education package, promotion of exclusive breastfeeding for children 0-6 months and complementary feeding for children 6 - 23 months and promotion of children attendance to immunization services at health facilities. An indicator, "number of children under five years reached by USG-supported nutrition services", measures provision of nutrition services for under-five years children. The adequate nutrition is essential for normal growth and development of a child. Figure 17 provide the findings of the program performance against target that revealed improvement in numbers of children reached with nutrition services at 92% in 2012/13 and 137% in 2013/14 surpassing the target.



These include behavior change communication activities, home or community gardens, micronutrient fortification or supplementation, anemia reduction packages, growth monitoring and promotion and management of acute malnutrition. Similar results were obtained in the regional level assessments (Table 9) with increased of number of children reached annually.

Table 9: Number of children provided with nutrition services per year by region

Year	Region		
	Morogoro	Dodoma	Manyara
2011/12	43,515	41,032	8,070
2012/13	226,727	196,285	57,383
2013/14	397,292	544,553	331,360

Source: MBNP Annual report, October 2013/14

3-6.3 Vitamin A Supplementation

Vitamin A is an essential micronutrient for the immune system that plays an important role in maintaining the epithelial tissue in the body. Severe vitamin A deficiency (VAD) can cause eye damage. VAD has the potential of increasing the severity of infections, such as measles and diarrhea in children, as well as perpetuate slow recovery from illness. Periodic dosing (usually every six months) of vitamin A supplements is one method of ensuring that children at risk do not develop VAD.

The program performance on Vitamin A supplementation to children under-five years is measured using an indicator, "number of children under five years of age who received Vitamin A supplementation from USG-supported programs". Analysis of the collected information from the household on children aged 6-59 months who received vitamin A supplementation in the last six months by region shows about 94% of 189 children age 6-59 months were given vitamin A supplements in the six months before the survey, which is a notable improvement as compared to 2010 TDHS result (61%). The regional assessment revealed a similar trend in the program performance. All (100%) of children studied in Morogoro, 93% in Manyara and 85.5% in Dodoma region received Vitamin A supplementation in the last six months. These results can be attributed to the capacity building interventions delivered by the program. Health facility records on this same indicator confirmed a significant increase of the number of children under-five years that received vitamin A supplementation from 2011/12 through 2013/14. Figure 18 presents MTE results on the analysis of the achievements against targets, which revealed that the performance in year 2013/14 has surpassed the target by 20%. However, in year 2012/13 the program achieved 76.3% (out of the targeted 270,000) of the planned target. The later low performance was associated with poor infrastructure and low health facility attendance rate especially in pastoralist communities. Similarly, the assessment of vitamin A supplementation by the under five years from the health facility data by regions (Table 10) indicated an annual increase in all three regions. These findings could be attributed to the program effort to promote linkage between the community and health facilities and demand for vitamin A supplementation to children.

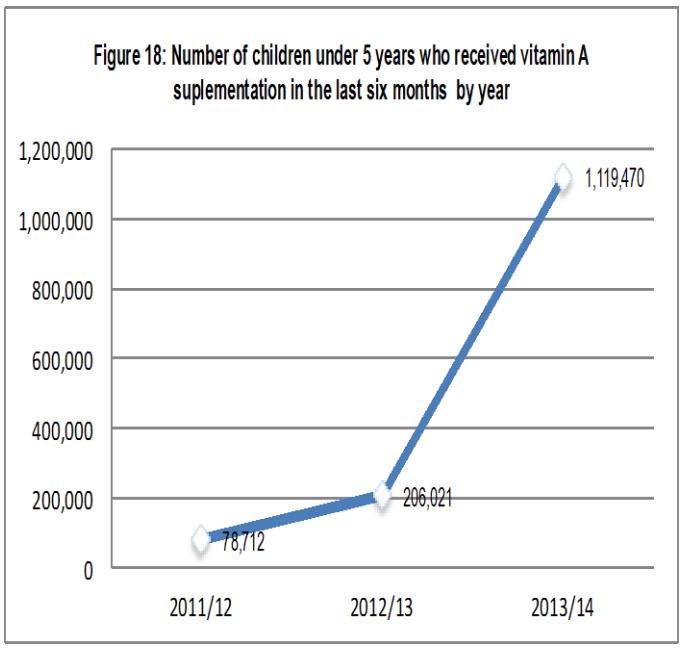


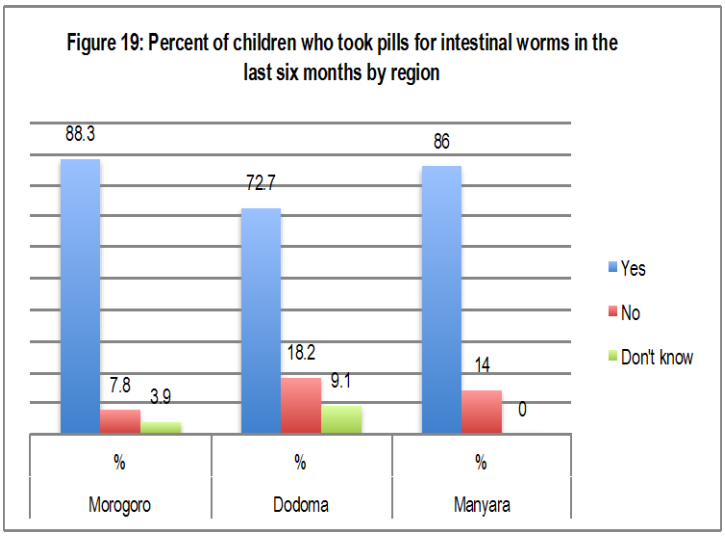
Table 10: Number of Children Provided with Vitamin A through Health Facilities

Region	Year 1	Year 2	Year 3
Dodoma	33,840	99,129	497,989
Manyara	1,727	28,445	281,675
Morogoro	43,145	78,447	339,806

Source: MBNP Annual report, October 2013/14

3-6.4 Deworming

Certain types of intestinal parasites can cause anemia. Periodic deworming for organisms like helminthes and schistosomes (bilharzia) can improve children's micronutrient status. MTE collected information from the household on children who have taken pills for intestinal worms in the last six *months.* The assessment of responses showed that the majority (83%) of children age 6-59 months received deworming medication in the six months before the survey, which are more than 2010 TDHS results (50%). The regional statistics in Figure 19 indicates that Morogoro and Manyara regions have the highest proportions of children who receive deworming medication (88.3% and 86%), respectively. This achievement might be associated with increased community awareness and availability of deworming medication in health facilities resulted from MBNP interventions.



3-6.5 Nutrition Status of Under Five Years Children

In assessing child health and survival it is important to include infant birth weight at birth and track child's growth by assessing nutrition status using anthropometric measurements. These two important areas were assessed by MTE on 237 children of which, 47.4% were male and 52.3% female. Analytical results are discussed below.

3-6.5.1 Child Weight at Birth

A child's birth weight is an important determinant of infant and child health and mortality, while a birth weight of less than 2.5 kilograms is considered low. For all births during the five-year period preceding the survey, mothers were asked to produce child's health card. If the mother or both parents were not able to present a card, she was asked to recall the specific child's size at birth. Although such information is subjective, it was useful proxy for the weight of the child in kilograms. The findings indicated that the majority (84.8%) of children under five year were weighed at birth, indicating that most deliveries occur at a health facility. The other 13.5% were not weighed, and parents of the remaining 1.7% children did not either know the birth weight or failed to present a health card.

Among births with known birth weight, only 3% (7 out of 237) were classified as having low birth weight (weighed less than 2.5 kg at birth). According to the respondent's own assessment of her infant's size (kg from recall), at least 3.8% (9 out of 237) infants were smaller than average. The majority (93.2%) of

infants were classified as average or larger than average.

3-6.5.2 Anthropometric Measures

MTE took anthropometric measures (height and weight) to facilitate the assessment of nutritional status of all children under-five years of age. Data was collected to calculate three indices: weight-for-age, height-for-age, and weight-for-height. For this MTE, indicators of the nutritional status of children were calculated using new growth standards published by the World Health Organization (WHO). These new growth standards were generated using data collected in the WHO Multicenter Growth Reference Study (WHO, 2006).

Standardized anthropometric Z-scores from anthropometric data that was collected from 237 children during MTE on: weight-for-age (WAZ), height/length-for-age (HAZ) and weight-for-length/height (WHZ) indices were computed as illustrated in Table 11. An indicator "prevalence of stunted children under five years of age", which measures the nutritional status of children under five years of age was tracked.

The assessment of stunting (height-for-age) in the program area revealed that 40% of children under-five years are stunted, and the 2010 TDHS[6] findings indicated 42%. Though it is not verified as to whether or not this is a statistically significant reduction, any improvement in the prevalence of child stunting is important to MBNP. This may show that the project is in the process of reducing overall rates of stunting in target areas through its investment in nutrition education and SBCC program, promotion of food diversification as well as community adoption of agriculture-nutrition technologies and supplementation. The regional assessment on prevalence of child stunting showed 44.2% in Morogoro Region, 38.2% in Dodoma Region and 36.1% in Manyara Region, respectively.

Table 11: Nutritional status of children under five years of age by sex, region and overall[1]

Category	Underweight		Stunting		Wasting	
Sex	*Yes*	*No*	*Yes*	*No*	*Yes*	*No*
Male	14 (12.5)	98 (87.5)	44 (39.3)	68 (60.7)	11 (9.8)	101 (90.2)
Female	27 (22.0)	96 (78.1)	50 (40.7)	73 (59.4)	8 (6.5)	115 (93.5)
Region						
Morogoro	13 (13.7)	82 (86.3)	42 (44.2)	53 (55.8)	5 (5.3)	90 (94.7)
Dodoma	18 (26.5)	50 (73.5)	26 (38.2)	42 (61.8)	10 (14.7)	58 (85.3)
Manyara	10 (13.9)	62 (86.1)	26 (36.1)	46 (63.9)	4 (5.6)	68 (94.4)
Overall	41 (17.5)	194 (82.6)	94 (40.0)	141 (60.0)	19 (8.1)	216 (91.9)

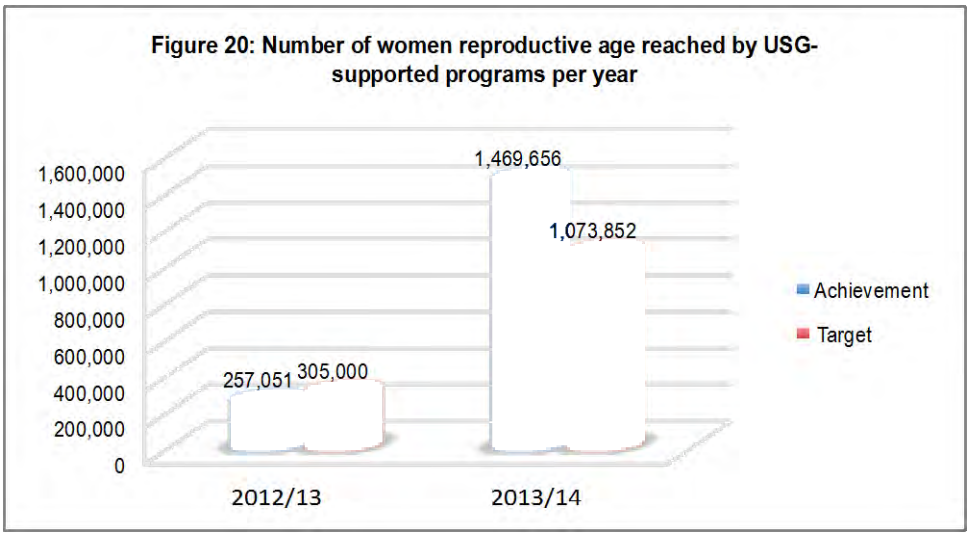
[1]Percents are shown in brackets in each cell

Further analysis of the indicator, prevalence of wasting for children under-five years of age, shows that the overall prevalence was 7.9% in the program area, while the result of 2010 TDHS was lower (5%). According to the regional analysis, the prevalence of wasting was 5.6% in Manyara Region, 5.3% in Morogoro Region and high 14.7% in Dodoma region, respectively. Additionally, the prevalence of the underweight of children who were under-five years of age in the ZOI was 17.5%. Child nutritional status was also stratified by sex. The findings in Table 11 revealed the underweight prevalence of 22% and 12.5% in female and male children, respectively.

[6] TDHS –Tanzania Demographic Health Survey

3-6.6 Utilization Maternal Nutritional Services

Overall cumulative weight of the performance on improved utilization of nutritional services for women of reproductive age under the program was measured by an indicator on, "number of women of reproductive age reached by USG-supported nutrition programs". This would include the number of women of reproductive age (15-49) who receive micronutrients, anemia reduction packages, and other nutrition services from health facilities, and those reached by behavioral change communication activities from USG-supported programs. According to MBNP records from the first and second year (Figure 20), the performance was 72% and 137%, respectively. The good performance in 2013/14 could be attributed to the continued promotion of nutrition education and SBCC and the improved nutrition services provision in health facilities.



The utilization of maternal nutritional services was also assessed through number of antenatal care (ANC) visit and coverage, use of iron supplements, use of anti-malaria drugs and the prevalence of anemia. The key findings are presented below in this section.

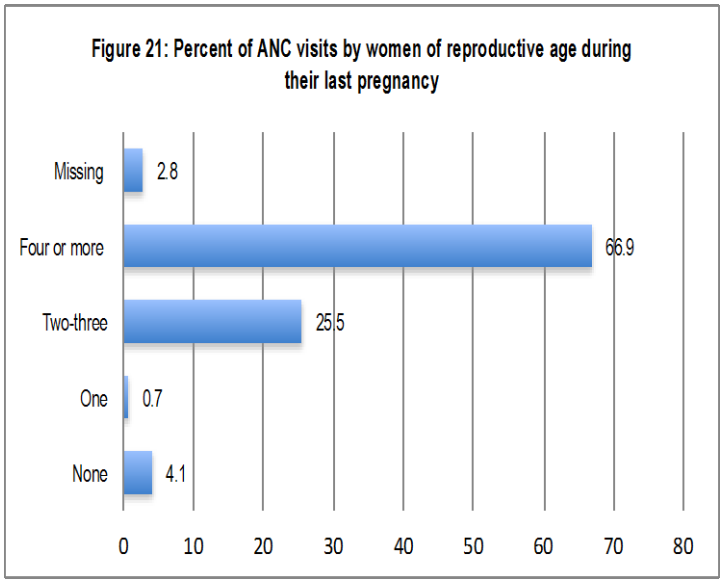
3-6.6.1 Antenatal Care

Early and regular checkups by trained medical providers are very important in assessing the physical status of women during pregnancy. Antenatal care can be most effective in avoiding adverse pregnancy outcomes when it is sought early in the pregnancy and continues through to delivery. This assessment allows intervention to occur in a timely manner if any problems are detected. The program has trained HFWs and CHWs/HBCs to provide quality nutrition services such as promotion of early booking for Antenatal Care (ANC) for pregnant women and utilization of antenatal and post-natal care services. The 2014 MTE obtained information on number of ANC visits, months of pregnancy on the first ANC visit and coverage.

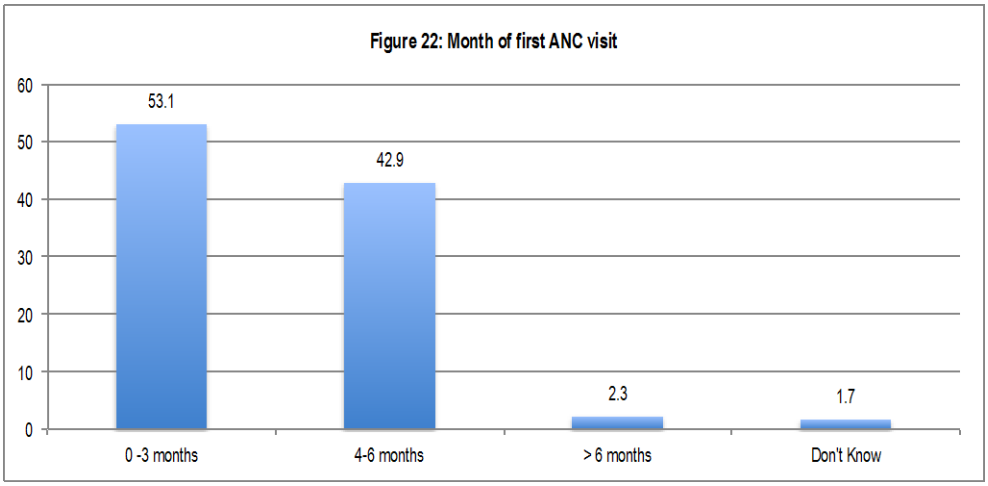
3-6.6.2 Antenatal Care Visits

WHO recommends that a pregnant woman without complications should have at least four ANC visits to provide sufficient care. It is possible during these visits to detect reproductive health risk factors. In

the event of any complication, more frequent visits are advisable and admission to a hospital may become necessary. About 67% of women whose last birth occurred in the five years before the MTE made four or more ANC visit (Figure 21) as per WHO recommendation. This is higher from the recorded 53% in 2010 TDHS by 14%. Women in Manyara region (18.8%) were less likely to make four or more ANC visits than 25.7% women in Morogoro region and 21.2% Dodoma region, respectively



Women respondents were asked a question, *"How many months pregnant were you when you first received antenatal care for the last pregnancy?"* The assessment of responses on the stage of pregnancy at the first visit is presented in Figure 22. More than a half (53.1%) of pregnant women made their first ANC visit during the first trimester, while the national data as per 2010 TDHS indicate only 15%.



3-6.6.3 Coverage of ANC

The majority (87.1%) of interviewed women received ANC from a skilled provider (nurses and midwives) at the health facility, the other (12.7%) receive some kind of antenatal care from people who are not medical professionals, such as CHWs and traditional birth attendants (TBAs). Women, who received ANC from a skilled provider in the program regions, were slightly more than 80% that was reported in the 2010 TDHS. The regional analysis indicated that more (87.1%) pregnant women accessed ANC services from health facilities, while the remaining 12.9% obtained ANC services from relatives, CHWs/HBCs and other community members.

3-6.7 Prevention of Maternal Anemia

The training of HFWs and CHWs/ HBCPs has strong emphasis on promoting the use of Iron Folic Acid (IFA) tablets for the prevention of maternal anemia and consumption of iron rich foods to women of reproductive age. Nutritional deficiencies like anemia are often exacerbated during pregnancy because of the additional nutrient demands associated with fetal growth. Iron status can be improved by providing iron supplements to food consumed by women along with improved diets and control of parasites and malaria. Iron supplementation is necessary for pregnant women because their needs are usually too high to be met solely by food intake. For pregnant women, daily iron tables are recommended throughout the pregnancy period (MOHSW, 1997). The program interventions focused on the provision of iron tablets and anti-malaria drugs in health facilities and promoted the use by pregnant women at the community levels.

3-6.7.1 Provision Iron Tablets in Health Facilities

The performance of interventions towards improvement of maternal anemia in health facilities is measured using the indicator, "number of pregnant women who received a full 90-day supply of iron tablets from a heath facility". MTE assessed number of women who took iron tablets during the last pregnancy and the post-partum period. The statistical analysis of collected data revealed that 85.5% (152 out of 179) of women age 15-49 years used iron tablets during their last pregnancy, while the remaining 14.5% did not. When asked a question, *"for how many days did you take iron tablets during the last pregnancy?"* The analysis of responses (Figure 23) indicated that more than a half (55%) used iron tablets for 90 or more days during the last pregnancy and the post-partum period. According to the national data in 2010 TDHS, the use of 4% of iron supplementation by pregnant women was 4%. The improvement in the utilization of iron supplementation might have resulted from the promotion of the intake of iron tablets by MBNP as a strategy to reduce prevalence of maternal anemia. The regional assessment indicated that the percentage of women who took iron supplements for 90 or more days per region (Table 12) is higher (58%) in Dodoma region, followed by 54.2% in Morogoro region and 52.4% in Manyara region, respectively.

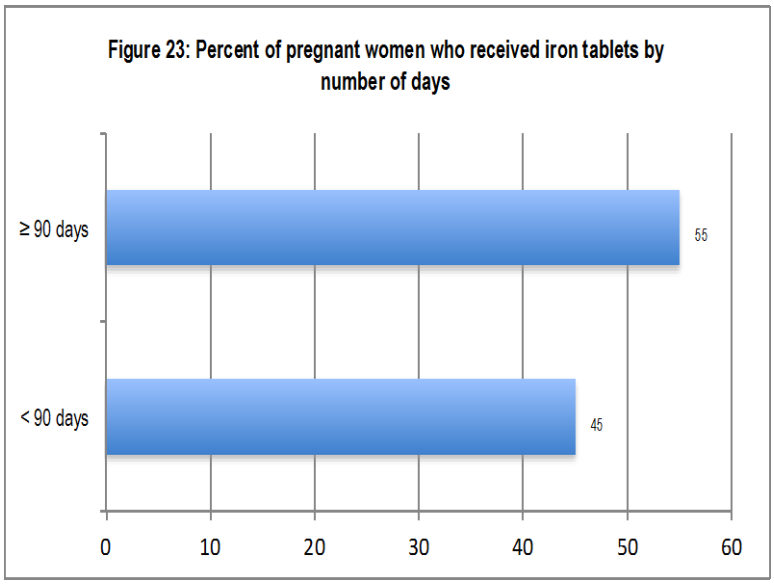
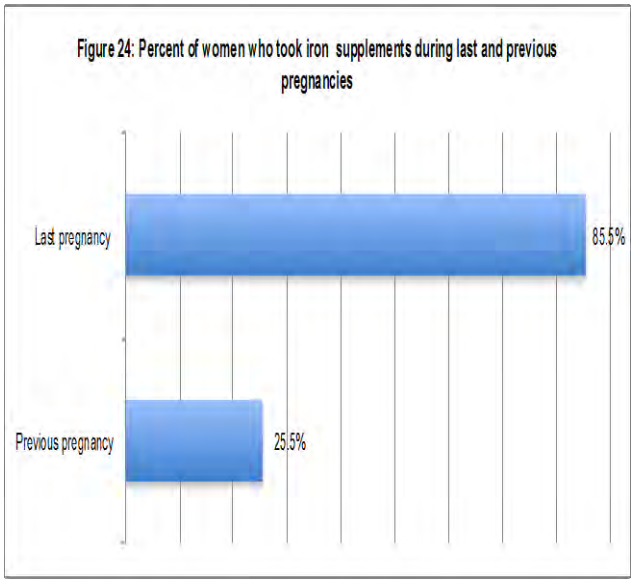


Table 12: Number and percent of pregnant women who took iron tablets per recommended days

Days of Uptake	Region					
	Morogoro		Dodoma		Manyara	
	N	*(%)*	*N*	*(%)*	*No*	*(%)*
< 90 days	27	45.8	21	42	20	47.5
≥ 90 days	32	54.2	29	58	22	52.4
Total	59	100	50	100	42	100

3-6.7.2 Use of Iron Tablets by Pregnant Women at Community level

Maternal nutrition services were to be improved through strengthening of existing maternal health platforms, which link facilities and communities with interventions aiming to attitudes and practices of pregnant women on the importance of iron supplements in addition to increased consumption of iron-rich food. MTE collected and analyzed information, which showed that 85.5% (123 out of 145) of the interviewed women took iron supplements during their last pregnancy that is more than (25.5%) who reported to take iron tablets during the previous pregnancy (Figure 24).



The analysis further revealed that 8.3% of those who reported to use iron tablets during their last pregnancy had to discontinue at a certain point in time because of either the associated side effects, or lack of access due to stock outs in health facilities or due long distance to reach a nearby health facility. Moreover, that assessment indicated that more (70.2%) pregnant women were advised by a health workers on the importance of using iron supplements as a preventive measure, 14.5% because they were diagnosed with anemia, and the remaining 15.3% because they were convinced by a relative or a friend.

During the FGDs, the program was said to be the main source of information and knowledge on the importance of iron supplementation during pregnancy. The majority (74.5%) mentioned SBCC kits as an information source. The above results confirm on the effectiveness of the program community

3-6.7.3 Use of Malaria Drugs for Prevention

Malaria is a major public health concern for all Tanzanians, especially for pregnant women and children under-five years. The disease is a leading cause of morbidity and mortality among outpatient and inpatient admissions. It accounts for up to 40% of all outpatient attendance (MOHSW, 2006). Many regions of the country report malaria transmission throughout the year. As a protective measure, it is recommended that all pregnant women in the country receive at least two doses of IPT with SP during the second and third trimesters of pregnancy.

MTE statistics indicated that the majority (84.4%) of women reproductive age 15-19 years took antimalarial tablets, which were received during the ANC visits. In addition, a high proportion (96.1%) of women consumed SP drugs during their last pregnancy, while the remaining 3.9% reported to have used chloroquine or other types of anti malaria drugs. Regional statistics revealed that less (26.0%) number of women in Manyara Region took SP as compared to Dodoma and Morogoro Regions (32.5% and 37.7%), respectively.

3-6.7.4 Prevalence of Anemia among Women

Anemia is defined as a reduction in the normal number of red blood cells or a decrease in the

concentration of Hb in the blood. Hb level below 7 g/dl for women whether pregnant or not is considered severe anemic status. MTE team used the HemoCue rapid testing methodology to obtain raw measured values of hemoglobin for assessing anemia prevalence among women reproductive age 15-49.

The overall findings from the analysis of collected samples from 175 women of reproductive age 15-49 years revealed that the anemia prevalence in the program area is 37.1%, while the 2010 TDHS results indicated 40%. This performance could be attributed to a number of program implemented interventions that focused awareness creation on the importance of iron supplementation on pregnant women, coupled with improvement of drugs ordering and supply chain to reduce stock outs. In addition, the analysis also showed that more than half (55%) of the women of reproductive age used iron supplements for 90 or more days for during the last pregnancy and the post-partum period. Table 13 presents the regional data on anemia prevalence as follows: 25.9% in Dodoma region, 27.1% in Manyara region, and 45% in Morogoro region, respectively.

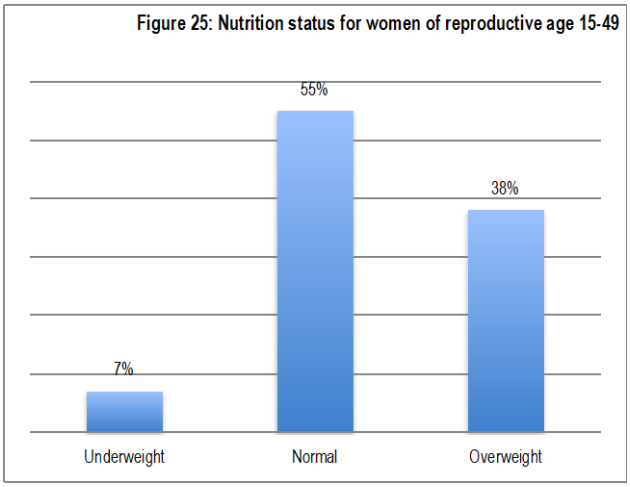
Table 13: Number and percent of anemic women of reproductive age 15-49 years by region

Status	Region					
	Morogoro		Dodoma		Manyara	
	N	*(%)*	*N*	*(%)*	*N*	*(%)*
Not Anemic >= 12g/dl	36	52.9	43	74.1	31	63.3
Anemic <12g/dl	32	47.1	15	25.9	18	36.7
Total	68	100	58	100	48	100

3-6.8 Maternal Nutritional Status

The nutritional status of women was assessed by using two anthropometric indices - height and body mass index (BMI). To derive those indices, the MTE team took height and weight measurements of women aged 15-49 years. Women who gave birth within two months preceding the survey were excluded from the analysis. Short stature of a human being reflects previously poor socioeconomic conditions and inadequate nutrition during childhood and adolescence. In a woman, short stature is a risk factor for poor birth outcomes and obstetric complications. A woman is considered to be at risk if her height is below 145 cm (<145 cm). The assessment of data collected revealed that the proportion of women with heights below 145cm was 4.2%. Regional statistics indicated that Morogoro Region has the highest (8.7%) proportion of women with heights below 145 cm, followed by 4.8% in Dodoma Region and, the lowest proportion (2%) was found in Manyara region.

The analysis of collected data from 179 women of reproductive age (Figure 25) showed that about 7% are underweight, and a total of 38% are obese. BMI value below 18.5 indicates underweight or acute under-nutrition and a BMI of 25.0 or above indicates overweight or obesity. BMI is calculated by dividing the width in kilograms by the height in meters squared (kg/m^2). Results (BMI values) are used to determine the percentage of women of reproductive age that is normal, underweight and overweight/obese.



The assessment in the program regions (Table 14) indicated high proportion (16%) of overweight for women in Morogoro, with 11% in Dodoma and Manyara regions, respectively. Similarly the assessment of underweight women indicated that only 1% of women of reproductive age in Morogoro region are underweight and about 3% in Dodoma and Manyara regions, respectively.

Table 14: Number and percent of BMI for women of reproducttive age 15-49 years by region

Region	Total underweight		Total normal		Total overweight		Total	
	N	(%)	N	(%)	N	(%)	N	(%)
Morogoro	2	1	38	21	29	16	69	39
Dodoma	5	3	37	21	19	11	61	34
Manyara	6	3	23	13	20	11	49	27
Total	13	7	98	55	68	38	179	100

3-6.9 Access to Maternal and Child Nutritional Services

MTE collected information on the problems faced by women in obtaining nutritional health care for themselves aiming to assess barriers that women may be facing in seeking care. The assessment of responses from interviewed women age 15-49 showed reasons such as permission to visit clinic, lack of money for treatment, long distance to health facility, as well as lack of willingness to seek health care. Across the three program regions, women in Manyara Region were most (57%) likely to cite permission to go to the clinic, than women in Dodoma Region (17%) and in Morogoro Region (4.2%). This might be associated with the culture and the high male domination due to the patriarchal system in pastoralist communities.

3-7 Institutional Capacity Building

The interventions under this Sub –IR 8.1 were designed to contribute into the improvement of policy and enabling environment for nutrition and agriculture in the country. This objective would be achieved by strengthening the institutions responsible for nutrition with a focus TFNC at the Central Government, and COUNSENUTH a civil society organization at the national level. In addition, MBNP has also invested support in enhancing the capacity of PMO–Nutritional Steering Commitee, and the Local Government Authorities (LGAs) through District Nutrition Multi-Sectoral Steering Commitees (DMSCs).

3-7.1 Institutional Strengthening of TFNC and COUNSENUTH

In collaboration Deloitte Tanzania (Deloitte Tz), the program delivered institutional capacity building program in line with the priority capacity needs using the Deloitte Organizational Capacity Assessment tool, while tracking the performance using an indicator, "*Enhanced human and institutional capacity development for increased sustainable nutrition program implementation for TFNC and COUNSENUTH".* The two institutions received the capacity building support on target improvements, which were identified as a result of Institutional Capacity Building Need Assessment processes specifically conducted on each.

3-7.1.1 Tanzania Foods and Nutrition Center

Tanzania Food and Nutrition Centre (TFNC) is the premier institution established by the Government of Tanzania through the Tanzania Food and Nutrition Act (1973) tasked with overseeing the implementation of nutrition activities under the Minister in the Ministry of Health and Social Welfare (MOHSW). TFNC is an autonomous institution governed by a Board of Directors and run by a Managing Director on a day-to-day basis. In 2011, TFNC was given an additional mandate to coordinate nutrition activities the country.

MBNP through Deloitte Tz has successfully established a consistent framework for TFNC to analyse its own performance against its mission, mandate and identify operational activities that drive the performance as well as areas to be strengthened. As a result, a capacity building intervention plan was developed and agreed upon between TFNC and MBNP to focus on structural and systemic gaps, which included:

a. Governance due to the lack of a Board of Directors (BoD) and a permanent Managing Director;
b. Clarity on the mandate for TFNC;
c. Absence of a strategic plan for providing a strategic framework in the implementation of the NNS and TFNC's transformation to become a viable national nutrition coordination institution.

MTE team found out that Institutional Capacity Buildind Assessement (ICBA) process was done in a participatory manner, which contributed to initial changes in the attitude of TFNC members of senior management and willingness to mitigate potential reasons for under institutional performance over the years, reported TFNC senior management during the consultation with MTE team. The assessment of the indicator having a capacity building plan that is informed by the outcome of the capacity needs assessment that was set to to measure performance and outcome of institutional capacity building

support indicated that all (100%) of the six (6) improvements identified during the ICBA have been successfully addressed. TFNC has an approved comprehensive Strategic Plan since November 2014 which focus on transfroming and equipping the institution to spearhead the implementation of the National Nutrition Strategy (NNS). MTE assessment also revealed that TFNC's organizational structure has been reviewed in line with its mandate, positioning and internal functions. The organizational structure was reviewed and the restructuring of three directorates -Policy and Planning, Finance and Human Resources and Administration took place. The GOT through the President's Office-Public Service Management (PO-PSM) has approved an allocation to recruit 29 new staff as part of the restructuring process, and the recruitment process has been initiated. The budget for institutional strenthening and spearheading NNS implementation has been included in 2014/2015 MTEF.

MBNP supported the development of accounts manual, resource mobilization strategy, skills gap study, and draft human resource manual. Alongside with the program support, FANTA implemented by FHI 360, supported the review of the National Nutrition Policy of 1982. The policy review process involved lead MDAs (Planning, PMO, Government Policy Review Team under the PO-PSM). The draft National Nutrition Policy and Strategies were validated by the Multisector Nutrition Technical Team before it was submitted to the MOHSW in December, 15th 2014 for onward submission to the Cabinet Secretariat for approval.

TFNC has been supported to clearly articulate direction and provide clarity on areas requiring stakeholder's support. MTE commends the consultative nature of Strategic Planning process in enhancing TFNC's visibility and the partner's perception. Despite these achievements, non-remittances of committed resources remain a challenge. Morever, during the interview with TFNC management a need for support to improve financial management and procurement system was given emphasis.

In addition, MBNP contributed to the enhanced TFNC's technical capacity on Nutrition SBCC through a review and developing of the National SBCC strategy and the associated communication materials, i.e., SBCC kits for farmers and health workers. The program is currently supporting the implementation and coordination aspects of National Nutrition SBCC Strategy at the Central Government and LGA levels. At the Central Government, MBNP supported to establishment and the functioning of three (3) consultative working groups: SBCC, Anemia, and IYCF. MBNP has enhanced the capacity of TFNC to deliver technical nutrition education through participation in training activities and in the organized joint supervision visits. However, MTE revealed that TFNC has inadequate technical capacity on SBCC programming. This may require specific program consideration.

3-7-1.2 COUNSENUTH

COUNSENUTH is a local Non-Governmental Organization (NGO) specializing in nutrition programming in the country. The organization constitutes one of MBNP consortium partners and also a beneficiary of the institutional strengthening support within the USAID context of building capacity of national institutions to implement development programs.

MTE assessment revealed that COUNSENUTH has been supported to conduct Institutional Capacity Assessment in year 2012, which has been resulted into an Institutional Capacity Building and

Graduation Plan 2012–2016. The assessment of the progress in implementation of institutional capacity building plan that was informed by the outcomes of ICBA indicated outcomes in organizational systems strengthening and improvements in technical capacity.

MBNP also supported the strengthening of revision key organizational systems (financial, human resources and procurement). Staff received on-the-job training and mentoring support to enhance their management skills, control and compliance. MBNP also supported the improvement of the administration and management processes by strengthening the management information system (MIS) through the installation of a new server, filing system, procurement system, reporting mechanism and website. COUNSENUTH will use the website for marketing and fundraising purposes and sharing of technical information resources with nutrition stakeholders. Despite of the improvements, the assessment indicated that COUNSENUTH system to monitor the organizational transformation and strengthening institutional is weak. COUNSENUTH should ensure effective integration of the institutional capacity building plan into the organizational Strategic Plan to facilitate tracking and performance measuring, as this was not evident.

The technical capacity of COUNSENUTH to implement nutrition programs has been enhanced. MBNP through its partner The Manoff Group has built the organization's capacity to implement nutrition SBCC interventions. The MTE assessment of progress on institutional technical capacity improvement revealed that COUNSENUTH have recruited an adequate number of trained nutritionists. The senior management staff, represent MBNP in nutrition meetings and participate in the three National Consultative Working Groups: SBCC, Anemia, and IYCF at TFNC.

*Despite the progress, CO*UNSENUTH like many other NGOs in the country was found to still depend heavily on donor support to execute its mission. The program supported the costing of priority income generating activities (IGAs) for the organization, and the documentation Resource Mobilization Strategy. The organization should hasty with the approval and implementation of this Strategy as it presents possibilities for COUNSENUTH to growth it's financial and asset base. MBNP should continue to support as planned while paying attention to the arising institutional capacity needs of COUNSENUTH, as there are likely to change over the period of the graduation plan.

3-7.2 CSO Sub Grantees

In efforts to build the capacity of local organizations, the program has recruited and entered into an agreement with CSOs to facilitate the implementation of community level nutrition activities in all 10 districts. These CSOs were trained on their contractual responsibilities; orientated on the program areas of focus; and supported to develop action plans and budgets, aligned with MBNP work plan and targets. This training also outlined the MBNP model of engagement with community members, i.e., care group model, demonstration plots, demonstration days as well as referral and counter-referrals between communities and health facilities. Promotion of maternal and child health nutrition education and SBCC by CHWs/HBCs through SBCC Kits was given a particular emphasis.

In collaboration with the Regional Nutrition Officers (RNuOs) in the three regions, MBNP delivered the training of CSOs. According to the interviewed RNuOs, the participation to the CSO trainings created their awareness and a better understanding of their role in supporting the program districts as regional partners. The assessment also found out that the program had observed protocols and procedures for proper introduction of these CSO sub grantees to the relevant LGAs; and in return, CSOs received necessary collaborative.

The interview with the senior management of CSOs noted the willingness to execute signed agreements. However, staff turn over was noted to be a challenge. CSO leaders cited low motivation as a reason for this. For example, lack of provision for salary increase throughout the program implementation years. CSO staff that was interviewed also complained of poor salary. As a result, CSOs employ junior staff (fresh from school) with very little to no experience.

3-7.3 Strengthening the National Scale-Up Nutrition (SUN) Secretariat

The Prime Minister's Office was tasked to establish a High Level Steering Committee for Nutrition (HLSC) that will oversee implementation of National Nutrition Strategy; since in September 2011 when the GOT ratified and committed to be part of the global Scaling Up Nutrition (SUN) Initiative.

MBNP provided technical input to the Secretariat through its active participation and development of operational National Guidelines specific for each National Technical Thematic Working Group: SBCC, anemia, and IYCF. With an exception of the National Guidelines for IYFC, which awaits dissemination, the program has successfully supported the development and dissemination of National SBCC and the National Anemia Guidelines. The program continues to collaborate with SUN Secretariat in order to ensure effective coordination towards improved nutrition policy and regulatory framework. A draft Nutrition Coordination Plan was developed in consultation with key national stakeholders and submitted to the Government for approval. Its approval by the Prime Minister will enhance the capacity to coordination nutrition stakeholders' support in the country.

3-7.4 Districts Multi-sectoral Steering Committees

The National Nutrition Strategy (NNS) outlined the need for district level coordination of nutrition activities, and the GOT passed a circular that instructs all districts in the country to establish Nutrition Multi-Sectoral Steering Committees (NMSCs). MBNP have supported the establishment of DMNSCs in all 10-district councils in the program ZOI under the coordination of Council Directors with the majority of its members are district heads of departments and sectors. In addition, the program trained DMNSC members on their roles and has allocated resources to support quarterly stakeholder coordination meetings. MTE assessment findings showed that these established DMSCs are not conducting the required quarterly meetings. All visited Districts would only recall a DMNSC meetings organized by MBNP to review 2013/2014 implementation and plan 2014/2015 activities and budgets. Selected DNTF members and District Nutrition Officers (DNuOs) met confirmed on the same. MTE consultations with DNuOs revealed that inadequate funding for committees operation was a reason for failure to implement this policy directive.

Uncoordinated stakeholder's nutrition support and implementation services threaten the continuity and sustainability of MBNP support. The program should liaise with Council Directors on potential measures for making use of allocated resources and promoting commitment to organize DMNSC's meetings on quarterly basis.

3-7.5 Supportive Supervision

MBNP technical teams conduct supportive supervision and on-the-job coaching with the purpose of supporting nutrition implementation efforts, particularly scaling up of nutrition education and SBCC in community using SBCC kits. The photo on the left was taken in Dodoma region in 2013 during the MBNP supervision visit held with PSG members. The supervision support by the program targeted all trained professionals and non-professionals, and community members through PSGs.

Organized supportive supervision visits aim to provide continued capacity building and learning opportunity. These visits also serve as a quality improvement measure to ensure consistency of SBCC approach across all program components. DNuOs and DNTFs were coached on their technical nutrition responsibilities.

The assessment indicated that the program co-opted subject matter specialists to participate on supervision missions for provision of feedback and advice for enhancing the quality of services. For example, experienced Pharmacists and Frontline Health Workers were invited to support the mapping and provide technical support on logistics management for Safe Motherhood commodities with emphasis on IFA. During consultations, TFNC leaders also informed the MTE team of their participation in organized visits, which were found to be useful. MTE assessment revealed that there is no set of national nutrition specific supportive supervision guidelines in the field. It is recommended that MBNP facilitate the harmonization of existing tools into National Supervision Guidelines.

3-8 Operational Research and Monitoring and Evaluation

MBNP interventions target national institutions tasked with the responsibility of overseeing the implementation of nutrition-related activities; regional level institutions are targeted to ensure the national policies and strategies have a direct bearing on the activities taking place at the grassroots level. These activities lead to individual and community behaviors that improve nutrition status of every member in the household, particularly the most vulnerable: pregnant and lactating women, infants and young children.

By design, MBNP would conduct operational research on institutional barriers aiming to equip CSOs and sector entities with the analytical skills to articulate the needs for reform in the nutrition sector. The monitoring and evaluation (M&E) of the implemented activities would be conducted in accordance to the indicators, which accumulates results and outcomes from program interventions. M&E reports are to offer learning opportunities, facilitate the identification and correction of any deviations, and to inform future plans.

3-8.1 Operational Research

The successful implementation of operational research would have resulted in stimulating the stakeholder's participation and investment in nutrition. The program has procured the services of BBC Media Action to deliver two-day training on Strategic Health Communication to program staff in the ZOI from TFNC, COUNSENUTH, and selected council representatives. The training was vital in improving the knowledge on the importance of evidence data at different stages of Social and Behavioral Change Communication (SBCC) interventions; various types of research such formative audience research, process research, summative research; media planning and audience segmentation; as well as the use of innovative methods to monitor and evaluate SBCC programs. The assessment of this training showed that it was very timely and important in ensuring the existence of local capacity to design and carry out SBCC campaigns. The program should put more attention on the use of acquired knowledge and skills from operational research so as to avail information, which will guide SBCC programming and nutrition reform in the country.

Moreover, BBC Media Action launched a formative research on radio program with the purpose of assessing the qualitative impact of '*SIKU 1000'* campaign among target audiences in Morogoro, Manyara and Dodoma regions as well as in Zanzibar. Findings of this formative research highlighted a number of radio stations, which are more preferred by listeners in each program region. Example include: Abood FM and Ulanga FM in Morogoro and Dodoma regions, respectively; and Radio Free Africa (RFA) in Manyara region. The results obtained provide useful evidence in making decisions and guiding SBCC interventions.

3-8.2 Monitoring and Evaluation System

M&E framework for MBNP involves on-going monitoring of program activities in the implementation of community and health facilities in the program districts, annual reviews, mid-term evaluation and terminal evaluation. The design of the M&E system was found to facilitate smooth collection and processing of program information at the different levels and intervals of its implementation. Annual reviews were conducted and resulted into three Annual Progress Reports, which furnished the MTE with secondary information on performance of program implementation, and challenging experienced.

MBNP was using an M&E system that feeds into the broader FtF and GOT M&E frameworks. The system has also aligned its project level results framework into the USAID Tanzania Results Framework. The program M&E framework complied to the Africare M&E framework of June 2009, which put emphasis on the routine process of data collection and measurement of progress toward program goals; and the Performance Monitoring Plan (PMP) to tracked the progress of implementing five intermediate results (listed in Section 3-2 of this report), which formed the basis of MTE assessment.

3-8.2.1 Monitoring and Review Capacity

MBNP has a designated full-time M&E Specialist to appropriately monitor progress and engage in development and/or improvement of the system. The M&E Specialist works to ensure that program results are monitored at all levels and contributes to their reporting systems. Further, the program has employed M&E officers at regional level to assist the M&E Specialists and build the capacity of community and health facility actors. The program has put in place a regular participatory monitoring function that takes into account supportive supervision to the work of CSOs and CHWs/HBCs as well as quarterly stakeholders review meetings.

3-8.2.2 Data Collection and Quality Assurance

The Program provided an orientation to all actors from the nation through community level (CHWs/HBCs, HFWs, CSOs and Districts council staff, and regional program office staff) on how to use pre-designed tools to collect community nutrition data.

The disseminated data collection tools were not user friendly. According to community level actors who were consulted, the tools were difficult to interpret and failed to collect comprehensive data. Further analysis revealed that those tools were not pre-tested. The Program noted this weakness and by the time of MTE data collection, the program had pre-tested revised data collection tools and the printing process was underway. The majority (89%) CHWs/HBCs met confirmed to participate on the pre-testing exercise.

Community data are collected by CHWs and HFWs, and then submitted to the respective CSOs sub grantee for compilation and submission to the Program Regional Office through M&E officers. The Program Regional Office assesses data completeness before submitting to the M&E Specialist at the Program Headquarters in Dar es Salaam for preliminary analysis and reporting.

In order to fulfill their responsibility, CSOs through their M&E officers use telephone calls and SMSs to collect data from all HFs every monthly as it has been practically impossible for a CSO to make physical visits. MTE team found this to be an innovative approach as it ensures data availability for program use; however, the approach poses a question on the reliability and quality of data. In efforts to ensure that reliable data is collected, MBNP consider to collect HF data from the DMO office. This will ensure that the program have access to official data. MTE team is suggesting to the program to conduct data verification and frequent consistency checks for improved data quality, which suggest the need for the program to provide an orientation of actors on how to fill in new data collection forms and to collect verified information. In addition, the program will have to promote the importance of timely collection and availability at the DMO office so as not to delay the program reporting process.

8-2.3 Reporting Framework

The program has standard reporting requirements, which adds into the baseline and other survey/assessment work undertaken to contribute to the larger M&E framework. Progress reports are generated at all levels.

The assessment noted that CHWs/HBCs at the village level produce reports and submit to the respective district CSO grantee on monthly basis. Unfortunately, copies of CHWs/HBCs reports were not submitted to the Village Government Office, leaving Village leaders less informed. Village leaders met had also confirmed to have no access to CHWs/HBCs reports. This information is necessary for Village Government to have so as to remain aware of the progress and promote community mobilization support services.

Reporting of progress made towards achieving expected results is done at the program level quarterly and annually. All reports produced from the program onset were presented. The reported information was found to adequately present the performance against planned outputs. However, there is a room for improving the comprehensiveness by integrating the qualitative aspects of the implementation process and program outcomes.

8-2.4 Feedback and Learning

The methodologies adopted to ensure full participation of program beneficiaries in organized program activities were found to be useful in improving community nutrition education and social behavior change. MTE assessment revealed that program reports were not disseminated to the regional and district stakeholders. MBNP should consider the use of existing statutory platforms, i.e., Village Assembly, Ward Development Committee (WDCs), DMNSCs and District Consultative Committee (DCC) as well as Regional Consultative Committee (RCC) to share on program objectives, implementation experience and lessons learned. This way MBNP will reach more leaders and cultivate political commitment in supporting the program goal on reduction of maternal anemia and child stunting, thus nutrition sector policy.

4-0 PROGRAM MANAGEMENT

This section of the report provides an assessment of the project management with regard to the institutional arrangements, parthenship building and coordination as well as gender and sustainability aspects. These support systems are critical to achieving intended results.

4-1 Institutional Arrangements

Under this section MTE assessment of the personnel and integrated management structure is presented.

4-1.1 Management Personnel

Africare provided overall administrative, managerial and technical direction to this program. The program recruited key personnel to oversee implementation of its activities including the Chief of Party (CoP), Deputy Director for Institutional Strengthening (DDIS), Deputy Chief of Party and Deputy Director for Implementation (DCoP/DDI) and Monitoring, Evaluation (M&E) Specialist, as well as the Director of Finance and Finance and Administration staff.

Three Regional Offices have been established, furnished and staffed to oversee implementation of program activities in each of the program implemented regions. A regional office has a Regional Coordinator, Monitoring and Evaluation officer and a Nutrition Officer, Finance and Administration Officer and support staff (other administrative staffs that support the efficient running of those offices). As mentioned earlier, the program is working closely with the district teams and the government machinery to implement its activities as well as entrench sustainability within its interventions.

The assessment of staff retainship showed that the program had experience frequent changes of senior leadership staff. Firstly, the first COP resigned in July 2012, followed by DDI who resigned during the third quarter of the program year two (2012/13), as well as M&E Specialist and the Communication Officer—both left at the beginning of 2013/14. Nevertheless, these staff gaps did not result into noticeable ineffectiveness or inefficiency in program implementation. In responding to this situation, Africare seconded its own Senior Country Director to act as COP, who also spearheaded the recruitment process from which staff gaps were replaced within the shortest time possible but the recruitment of the Communication Officer position is underway. MTE team met with MBNP senior management staffs that are committed and willing to manage the programs work toward achieving the expected results and nutrition outcomes.

4-1.2 Integrated Management Structure

The program management structure was found to be an appropriate and relevant. The functional units within the management structure provided the necessary expertise to achieve the planned Intermediate Results (IRs) as well as the competency to address the inherent SBCC approach underlying the program strategy.

In the case of COUNSENUTH for example, functional sub systems (such as those relating to operations and grant management) were found to have been well established and operational. COUNSENUTH was more actively engaged as both recipients of capacity development and a lead national NGO partner with its capacity progressively developed into becoming a strong national institution, capable of planning, implementing and evaluating nutrition programs. With further Technical Assistance (TA) from the consortium technical partners the organization has a potential to assume more program management responsibilities "as needed" in the remaining years of the program.

The Manoff Group led the technical direction for the SBCC strategy development and development of the SBCC Communication and Education package in collaboration with COUNSEUTH and TFNC was reported by stakeholders to be effective and in line with NNS. Manoff will continue assisting the program to develop SBCC household survey questionnaire to measure nutrition behavior change.

By the time of this MTE, the newly deployed RNuO and DNuOs hadn't received SBCC and nutrition technical training, which is vital in ensuring a feasible model for the scale-up of the SBCC package and prioritized nutrition interventions in respective LGAs. The program has contracted BBC Media Action to provide Short-Term Technical Assistance (STTA) targeting SBCC capacity development of designated actors at the national and district level structures. BBC Media Action has successfully carried an assessment on the impact of Mwanzo Bora SBCC 1000 Days (Parent) Kit. It is expected that the program will use the findings from this study to streamline the materials in the Kit and retain those that have stronger impact on behavior change. Similarly, MBNP should use the findings to improve the SBCC programming capacity that was found low at all levels.

Deloitte Tanzania was a key locally based technical partner, providing the high level of effort of targeted technical assistance needed to strengthen institutional and management capacity for TFNC COUNSENUTH and CSOs. The assessment indicated that Deloitte/Tanzania has successfully provided the targeted TA on sub-grants management, financial management & auditing, performance mapping and HR capacity development. It is good to note that the previously discussion achievements by TFNC and COUNSENUTH (in section 3-7 of this report) have resulted from the TA provided by Deloitte/Tanzania. Despite the recorded improvements, the continued TA by Deloitte/Tanzania should now be directed to enhancing the capacity of both TFNC and COUNSENUTH for institutionalization and management of developed systems to maximize the operational and technical performances.

4-1.3 Sub-Grantees Performance Management

Africare has an effective system set up for the management of CSO sub -grantees. CSOs were selected using pre-defined criteria and signed 12 months' commitments '*performance contract*' with agreed performance indicators in line with the delivery of SBCC strategy. The performance contracts for CSOs have clearly stipulated that payments are made quarterly depending on the level of performance for each of the agreed indicator and this is contingent upon achievement of performance milestones by 80% or more. Sub-grantees were required to report monthly on activities, and quarterly on progress of program activity implementation and performance under each result. The assessment also revealed that CSO grantees were providing both fiscal and operational results as well as submitting their expenditure statements and financial needs requests.

4-3 Partnership Building and Coordination

This section provides the assessessment of the program collaboration with the Government, Partnerships with Other FtF Partners and networking with other CSOs.

4-3.1 Colaboration with the Government

Council Directors (CDs) and District Medical Officers (DMOs) in all visited Districts were aware of the trainings and activities implemented by the program. The program has established the DNTFs in all 10 District Councils, which are charged with the delivery of stakehlder orientation and trainings aiming to create community awareness of program objective and improve capacity to implement SBCC and other essential nutrition activities in the district. The assessment showed that this collaborative arrangement has enabled the program to hasten the implementation of planned interventions from the ward through village levels.

At the Central Government, the program has been working in a close collaboration with PMO-NS, TFNC and NBS aiming to enhance the coordination of NNS and scale up the implementation of SBCC strategy, among other things.

Despite the council staffs, senior leaders such as Regional Administrative Secretaries (RAS) and political leaders seemed to have limited awareness and poorly participated in program activities. As previously mentioned (section 8-2.4 of this report), sharing of program information through stakeholders and decision-making forums has a potential of further accelerating the commitment of senior leaders and politicians to support the nutrition agenda.

4-3.2 Partnerships with Other FtF Partners

MBNP made deliberate efforts to facilitate optimal synergy and establish mutually beneficial partnerships that would contribute to the accomplishment of its goals. The program ensured

implementation of interventions was coordinated and synchronized to maximize opportunities for leveraging resources for complimentary activities especially with ongoing USG supported FtF efforts that were focused on improving agriculture and nutrition linkages. In this regard, MBNP worked closely with other Nafaka and Tuboreshe Chakula projects. The program has initiated potential partnership with Global Service Corps (GSC) for purposes of using GSC's rapid multiplication approach for increasing the adoption of keyhole gardens for home vegetable production in order to promote the consumption of nutritious foods (dietary diversification) at the household level.

4-3.3 Networking with other CSOs

MBNP has been delivering its community focused program objectives using CSO sub-grantees in each district. Apart from CSO sub grantees, MTE team did not find a working relationship of any form with other existing CSOs, either Community Based or Faith Based Organizations in Zone of Influence (ZOI). MTE team encourages formation and/or strengthening networking with existing types of CSOs even at ward and village levels. This nature of networking is expected to broaden the promotion of nutrition education and advocacy, hence widening adoption of positive nutrition behaviors.

The program should consider conducting meetings that bring together civil society institutions working on agriculture and nutrition related issues in communities to identify potential areas and agree on modalities for collaboration. Inviting more CSOs to participate in the scaling up of nutrition education and SBCC package is not only in line with the program's objective of building capacity of local CSOs, but it is also expected to curb the gap of inadequate coverage of CHWs/HBCs.

4-4 Gender Mainstreaming

Gender issues have informed the design of MBNP. The program recognizes the different roles women and men played, particularly in the agriculture sector that accounts for more than 85% of the labor. The finding of the gender assessment done by MTE team indicated that while MBNP did not provide for or recruit a dedicated gender focal person among its management staff, the program implementation duly emphasized gender as a critical amalgamating issue. The analysis of gender integration showed that MBNP implementation strategy has also recognized the major role played by women in household, including roles such as provision of labor input in the production processes.

The composition of PSGs that are the main community structures through which household members have been reached with MBNP supported SBCC activities, considered the participation of both men and women as critical to the achievement of community level objectives of the program. Nevertheless, participation of men in PSGs remained a bit low (less 40%) as compared to over 60% women members.

According to CHWs, most men expect tangible benefits and fail to recognize the value of nutrition education that is provided for free and that it a catalyst for intergeneration behavior change. MBNP has to promote the need for male participation on PSG so that they become active partners and

nutritional SBC agents.

The appointment of CHWs and HBCs by Village Leaders emphasized on the identification both men and women in all villages. As a result, there were 55% female and 45% male CHWs/HBCs recruited to the program. The increased number of male CHWs/HBCs may become a good model for attracting more male participation in SBCC interventions. Recruitment of men and women facilitators (DNTFs), CSOs sub grantees and regional program office staff considered gender as a key criterion for recruitment.

Gender mainstreaming is a key strategy in the implementation of MBNP. There is a Gender Mainstreaming Strategy that clearly stipulated how the program integrates gender into its plans and activities implementation. The gender mainstreaming strategy has deliberated on ensuring gender equality through participation of both men and women as active as partners in the prevention of maternal anemia and childhood stunting, and insuring positive nutrition outcomes in the community.

Strategies for women empowerment were outlined and male participation has been given deserved emphasis. The strategy recognized the significant ownership over productive resources and power on the expenditure of household income men have due to social-constructions of gender and patriarchal system that is widely practiced. In this regard; therefore, having the majority of men engage with the promotion of nutrition education and SBCC packages is pivotal to the success of program objectives.

M&E system also provided for performance and process indicators at output and activity levels respectively, which collect and track gender disaggregated performance data. Gender disaggregated information forms an integral part of the reported information. Nonetheless, in some cases reported information was not disaggregated by gender leading to an information gap that hinders the assessment of gender quality improvement.

5-0 LESSONS LEARNT

There were a number of lessons learned that MTE team presents as key learning points to guide future MBNP implementation. These include the following:

1. MBNP activities directed at the strengthening and development of operational systems through the approach of addressing gaps and bringing various actors/stakeholders along nutrition discussions together have immense potential for creating a sustainable environment toward reaching the program goal and objectives. An example of where this has been successful is in the use of CSO sub guarantees, a cost effective strategy as these institutions work very closely with the people and have a good understanding of the nutrition related socio-culture practices as well as community norms;
2. Awareness and promotion of quality nutrition education and SBCC to a wider community is an effective public health or preventive approach in addressing pregnancy anemia and childhood stunting in a long term;
3. The design and implementation of interventions for the nutrition education and social behavior change was deliberately considering high illiteracy rate of community members.
4. CHWs/HBCs volunteering poses a challenge because they are also required to produce and earn for their families.

6-0 CONCLUSION

Whether or not the program has achieved its goals can be assessed through the effectiveness of the program activity implementation, the efficiency with which they were implemented, the overall performance level, and possibilities for the sustainability of the program's outcomes/impact in the areas of concern.

Generally speaking, there has been a reduction in the prevalence of maternal anemia as well as a more effective response towards reduction of childhood stunting in the target areas of the program. This is evident through an increase in consumption of nutritious foods by women of reproductive age 15-49 years and under five-year children at the household level. While program interventions for this aspect received better responses in specific regions, it could be safe to confirm that with continued program support the program targets and intended outcomes are likely to be achieved by the end of the program period.

There has been a large effort towards the increased budget allocations for nutrition interventions at national and district level such that more is allocated to the planning aspect of the program as intended. However, even with an increase in budget allocation, there are still very little resources supplied or readily available for use thus hindering efficiency and even effectiveness in some cases.

A very important factor to be considered as well is that of sustainability and to the extent that this has been nurtured. It has been observed that some of the households have continued to utilize the recommended measures made familiar to them by the program such as including properly prepared vegetables in household diet (dietary diversification), IYCF practices, use of iron supplements, hand washing with soap as frequently as possible, which shows that some intervention programs would have a long lasting impact.

Perhaps, one of the most important aspects in question is behavior change with emphasis on improved knowledge, attitudes, gender norms and social support for specific maternal and child nutrition practices. SBCC has proven to be an excellent strategy as it is usually at the grassroots level and aimed towards achieving many of the other targets. However, this strategy required time to generate outcomes and impacts as behavior change only becomes apparent after constant dialogue and repetition of the implemented practices. Thus an accurate representation cannot be attained yet.

Although women of reproductive age seem keen to make use of nutritional services as well as health facilities, the number and quality of resources within the facilities is remarkably low. In addition, women are not getting the support needed from other members of the household such as their husbands to make informed choices and have control over use of resources available. There is still limited access and utilization of maternal and child health services such as education and nutrition counseling, intake of iron supplements. Thus, intended use of nutrition education and resources by women of reproductive age is not adequately met as per the standard of the program.

There has been a significant improvement in the strengthening of Institutional Capacity of Government institutions (central and local) as well as CSOs. However, in addition to inadequate technical capacity, there is still evident bureaucratic failures and slow decision making which hinders efficiency in the coordination and implementation of nutrition interventions called for by NNS. Moreover, there is still a need for institutions to operationalize tools available so as to further achieve targets set.

Programming capacity for SBCC is inadequate. Technical assistance is required to enhance capacity of actors in the program. There is also still limited operational research information and documented lessons learnt from SBCC implementation to even better inform decision-making and programming. Additionally, although the M&E system has been effective for the most part, there seems to a problem in tracking the impact of electronic media channels used such as the radio as well as the qualitative aspect of change in gender dynamics. Thus the level of effectiveness in this regard is either immeasurable or unclear.

These observations inspire thought into the root causes of hindrance of absolute success of the program as well as strategies of ensuring that planned targets by the program could be fully met in the future. A close examination of each target is required so as to acquire justifications and thereafter, meaningful implementable recommendations so as to further improve the extent to which the program will achieve the intended outcomes.

7-0 RECCOMMENDATIONS

The following are the MTE teams' recommendations based on the findings from the assessment of program documents and consultations with stakeholders. These recommendations are presented as implementable actions for MBNP consideration in enhancing the performance under its Sub-IRs and management for the remaining program period.

Sub-IR 3-1:Increased investment in agriculture and nutrition related activities

Despite of the increase in the budget allocation at the national level (PER report, January 2014), nutrition budget allocations at the district level remains low. It is recommended that the program:

1. Works in collaboration with PMO-NSC and TFNC to strengthen the stakeholder's coordination and build the capacity of DMSCs for developing nutrition strategic plans and the subsequent annual costed plans.
2. Disseminate its objectives and lessons from implementation through regular meetings, i.e. DNMSCs, Council (Financial Committee and Full Council) meetings, District Consultative Committees (DCCs) as well as Regional Consultative Committees (RCCs).
3. Works closely with Council Directors to increase their commitment and organize DMSC meetings for effective stakeholders' coordination on quarterly basis.

Sub –IR 5-1: Increased consumption of nutritious foods by Women and Children at the household

Demonstration plots and demonstrations days that involve a practical hands-on learning approach and use of demonstration materials, whose costs are above their capacity to procure and use have been key in facilitating knowledge transfer to households. The evaluation team has determined that these inputs have been critical in influencing the behavior of some farmers but the capacity to procure these inputs has hindered efforts for increased household adoption. With awareness that USAID/MBNP policy does not permit the provision of free materials/inputs it is recommended that:

1. MBNP to subsidize demonstration inputs especially high costs like seeds (crop and livestock), housing materials, while ensuring community access to inputs from demo plots for scaling up.

2. The program accelerates the provision of entrepreneurship education to increase productivity as well as income generating and savings (SILC and SACCOS), which could potentially enhance people livelihood and income.

3. MBNP may consider active engagement of extension workers who are also government employees at the ward level (with specialization on crop production, livestock keeping, community development, primary health) to provide regular technical/sector specific input at community level. Currently, the role of these extension workers to the program is not clearly defined, and they never received any training or orientation on SBCC and nutrition-agriculture linkage.

Sub –IR 6-1: Improved nutrition related behaviors

Some of the households were found to access certain foods but continued with a common practice, did not eat a diversified diet. There are about 25% of children under six months old who are not exclusively breast-fed, were given complementary food. Change in behavior requires continuous education and dialogue that is built on evidence-based information. It is recommended that:

1. MBNP actively document and dissemination lessons on IYCF practices and dietary diversification aiming to encourage more households to adopt effective ways for processing and preparation of diversified and nutritional diet with a specific focus on exclusive breast-feeding, complementary feeding as well as feeding during pregnancy.

SBCC Kits were widely disseminated and used in raising community awareness and promoting nutrition education for children and education on behavior change towards pregnant and lactating women through PSG meetings under the coordination of CHWs/HBCs and the importance of '*SIKU 1000'* in life of a child. The multimedia communication nature of the Kit was mostly appreciated, with radio and community theatre communication channels most preferred. It is recommended that:

1. MBNP enforce the mobilization and organization of PSG meetings at the hamlet (Kitongoji) level by CHWs/HBCs.
2. Consider mapping of existing CHWs/HBCs and organize gap replacement, refresher training and a cost-effective incentive package as high turn over rates were reported on this cadre.
3. Implement the recommendations of BBC Action Media that are likely to be raised from the commissioned study on the "*Assessment of the Mwanzo Bora SBCC Kit*" that is currently ongoing.

Iodization of salt: The commonly used salt in the program area is locally manufactured, because residents find it more appetizing and affordable. Nevertheless, most of this salt was found to contain zero or very little iodine content. It is recommended that:

1. MBNP strengthen its efforts in the awareness raising and promotion of education on the importance of iodine in the human body through its SBCC program. And, liaise with TFNC for further awareness and enforcement actions on salt iodization to all licensed salt manufacturers and exporters in the country.

Hand washing: The program had promoted hand washing as an important hygiene practice through supporting establishment of tippy taps along demonstration plots, while expecting households to adopt the use of this technology. Unfortunately, the adaptation rate and hand washing behavior at the household level has remained low. It is recommended that:

1. The program continue to promote hand washing as an important hygiene practice with emphasis on the use of tippy taps as well as support for household installation.

Sub-IR 7-1: Improved Utilization of Maternal and Child Health and Nutrition Services

Intake of iron tablets for up to 90 days or more during pregnancy as recommended is still low. The reasons for this include periodic stock outs of iron tablets in health facilities, and the low acceptability by

the community due to lack of awareness and education on the importance of iron on a human body. It is recommended for the program to:

1. Put more emphasis on continuous education (orientation and refresher trainings) for behavior change at the facility and community levels, targeting professionals and non-professionals with special focus on the delivery of SBCC program as well as addressing technical capacities such as nutrition planning, quantification and supply chain management of drugs and commodities from MSD through community entities and quality of services.

While the MTE noted an increased number of pregnant women who make early ANC visit (during the first trimester) as per WHO recommendation, there is also a larger proportion that do not. It is recommended that MBNP:

1. Strengthen the community to heath facility referral and feedback systems, with a specific focus on early ANC visit. Community education could effectively be promoted through PSG meetings, village assemblies, and health facilities.

Sub-IR 8.1: Improved Enabling Policy Environment for both Agriculture and Nutrition

DNTF teams are made up of Council staff from key nutrition sectors, which are supposed to actively support districts in the coordination and management of nutrition plans. However, some council staffs including Council Directors were having limited knowledge about MBNP objectives and main interventions. It is recommended that:

1. MBNP should encourage DNTFs to promote and create awareness about the program's work in Council Departments through active feedback about their involvement with the program. This in their respective departments and the District Council as a whole, as this is important in creating learning and facilitating integration of nutrition priorities in the Council's Development Plan.
2. MBNP should continue to support TFNC to iron out existing administrative bottlenecks and strengthen SBCC programming capacity so that all achieved milestones can benefit the organization and nation as a whole.
3. MBNP should continue to support the effective functioning of COUNSENUTH's governance structures of the organization as the delay is likely to attract new changes in the Institutional Capacity Needs over the period of the graduation plan, which deters realization of program results.

The program is not well known, thus there is limited commitment of senior government officials and politicians at the regional and district levels.

1. Lobbying is required so that MBNP is accepted as an important participant in existing decision-making and consultative structures at the regional and district levels, the Regional Consultative Committee (RCC) and the District Consultative Committee (DCC), respectively. Use these meetings as an opportunity to create awareness, promote nutrition agenda and provide support (technical and operational) in areas which need further strengthening.

Monitoring, Evaluation and Learning

Monitoring and Evaluation system supported data collection and reporting for upward accountability. Program experiences and lessons are not adequately shared with stakeholders at district level. It is recommended that:

1. The program disseminate information on implementation progress, challenges and lessons to district stakeholders using coordination forums so as to raise awareness and encourage stakeholders to use the information in decision-making, planning and budgeting processes.

The M&E system for the program has put emphasis on data quality assurance; however, there is a room for improvement. The program could consider the following recommendations for improvement:

1. Build the capacity of actors at all levels and organize refresher trainings on use of too for data collection, data verification and checks for consistency, and integrated reporting.
2. Liaise with District Medical Officers (DMOs) for the facility data to be officially collected from his office, instead of using CSOs staff that use telephone calls and SMS to collecting it from every health facility. This mode of work posed a question on the reliability of the reported data.
3. Encourage CHWs to share copies of reports with Village Executive Officers (VEOs). This will serve as initial point of verification and also provoke the commitment of leaders to support program interventions, particularly with community mobilization.

The successful implementation of operational research is expected to stimulate stakeholders' participation and investment in nutrition, and provide greater incentives for community members (women, men and children). Nonetheless, low stakeholders capacity in designing and carrying out SBCC campaigns was revealed regardless of program supported technical capacity enhancement through Manoff Group initially and currently BBC Media Action provide technical assistance. It is recommended that:

1. MBNP procure the services of the Short Term Technical Assistant (STTA) to improve stakeholder's capacity to conduct operational research, monitor and carry out internal assessment of the SBCC package. This should include ability to track the impact of electronic communication channels used to disseminate SBCC messages such as radio.

The learning strategy of the program is not clearly spelt out and feedback mechanisms are inadequately used to inform on the performance of actors in the implementation process and responsibility of structures on key sectors of central and local governments. It is recommended that:

1. MBNP clearly define its learning strategy (with actions and associated performance indicators) that will guide documentation of lessons learnt and good practices, the packaging and dissemination to the different audience.
2. Revamp the feedback mechanism to enable actors and stakeholders to share information, provide and receive feedback on the program performance direct from the public and targeted communities and vice versa. This is expected to enhance stakeholder's participation in the delivery of community-based nutrition services and social behavior-changing education leading to reduce childhood stunting and maternal anemia.

Program Management

There is limited number of CSOs participating in the delivery of NNS. The strategic partnership with existing CSOs at ward and village levels (in line with the expanded program objective to build capacity of local CSOs) would have enabled broader promotion of nutrition education and advocacy on planned interventions, help to fill the gap of inadequate coverage of CHWs/HBCs, and also attract more resources to implement essential nutrition actions. It is therefore recommended that:

1. The program work in collaboration with DMNSCs to organize meetings with CSOs working on agriculture and nutrition related issues with a purpose of creating their awareness on the essential package for nutrition planning and budgeting, and agree on potential areas for collaboration. Consideration needs also to be put into the work modalities and relationship with CSO sub-grantees.

CSO sub-grantees have showed high commitments to implement and deliver as per contractual agreements. However, these CSO grantees experience high staff turnover that have resulted into inadequate technical and managerial capacities. It is recommended that the program:

1. Conduct performance assess on the qualification of CSO grantees prior to annual contract renewal, and organize refresher trainings to improve the quality of operational and technical competencies.

MBNP has a gender strategy, and its implementation duly emphasizes gender as a critical amalgamating issue. Gender is mainstreamed into the project design, activity implementation, and M&E system. However, the mainstreaming focuses more in quantitative aspects leaving the gaps in qualitative gender considerations. It is therefore recommended that the program:

1. Conduct a gender analysis study to assess the qualitative aspects of gender responsiveness, and use the findings of this study to inform gender planning and budgeting.

ANNEXES

ANNEX 1: LIST OF STUDIED VILLAGES

S/No.	Region	District	Ward	Village	No. per District
1	Morogoro	Mvomero	Diongoya	Lusanga	8
2	Morogoro	Mvomero	Kanga	Kanga	
3	Morogoro	Mvomero	Hembeti	Msufuni	
4	Morogoro	Mvomero	Mvomero	Mgudeni	
5	Morogoro	Mvomero	Mlali	Manza	
6	Morogoro	Mvomero	Mlali	Peko Misegese	
7	Morogoro	Mvomero	Mgeta	Kibaoni	
8	Morogoro	Mvomero	Nyandira	Nyandira	
1	Dodoma	Kongwa	Kongwa	Kongwa	7
2	Dodoma	Kongwa	Chamkoroma	Chamkoroma	
3	Dodoma	Kongwa	Chamkoroma	Tubungwe Juu	
4	Dodoma	Kongwa	Iduo	Iduo	
5	Dodoma	Kongwa	Sagara	Ibwaga	
6	Dodoma	Kongwa	Mtanana	Mtanana A&B	
7	Dodoma	Kongwa	Hogoroa	Hogoro	
1	Manyara	Babati	Mawemairo	Mawemairo	5
2	Manyara	Babati	Mamire	Mamire	
3	Manyara	Babati	Endakiso	Endakiso	
4	Manyara	Babati	Dareda	Dareda Kati	
5	Manayara	Babati	Bermi	Bermi	
Total					20

ANNEX 2: LIST OF PEOPLE MET

S/No.	Name	Organization	Designation
Dodoma region			
1.	Prisca Msong'o	MBNP	Regional Coordinator
2.	Mary Bonaventure	MBNP	Regional Nutritionist
3.	Elias	MBNP	Regional M&E officer
4.	Herieh Carin	Kongwa D.C	District Nutrition Officer
5.	Leticia Shosho	Kongwa D.C	District Reproductive Health and Child Coordinator
6.	Justine Shirima	Kongwa D.C	Medical Officer
7.	Amina Mustafsa	Kngwa D.C	Trained Nurse
8.	Frank Uhwullo	Kongwa D.C	District Planning Officer
9.	Hamza Mdoe	Kongwa D.C	Planning Officer/Economist
10.	Ganja S. Kubeja	Kongwa D.C	Planning Officer/Statistician
11.	Mr. Kimaro	Kongwa D.C	District Community Development Officer
12.	Stefen Mwandi	Kongwa D.C	Community Development Officer
13.	Othman Bohari	UMWEMA	Executive Director
14.	Hance Forogo	UMWEMA	M&E officer
15.	Joshua Msaka	Kongwa	Home Based Care provider
16.	Tumaini Dani	Kongwa	Home Based Care provider
17.	Margareth Mgagi	Kongwa	Community Health Worker
18.	Judith Nganga	Kongwa	Community Health Worker
19.	Dr. George Karumuna	Chamkoroma	Health Facility In-Charge
20.	Neema Maligana	Chamkoroma	Community Health Worker
21.	Melabi Mbatiani	Chamkoroma	Community Health Worker
22.	Peter Mtiyani	Chamkoroma	Community Health Worker
23.	Abbasi R. Pazia	Tubugwe Juu	Community Health Worker
24.	Peter Baton Husein	Tubugwe Juu	Community Health Worker
25.	Paulina G. Lyakana	Tubugwe Juu	Community Health Worker
26.	Abasi Mgenjo	Iduo	Community Health Worker
27.	Paulina James	Iduo	Community Health Worker
28.	Gisela Lusingo	Iduo	Ag. Health Facility In-Charge
29.	Ejidi Lenjima	Iduo	Community Health Worker
30.	Habiba salumu	Iduo	Home Based Care provider
31.	Michael Ngalya	Ibwaga	Health Facility In-Charge
32.	Magreth John	Ibwaga	Enrolled Nurse
33.	Jane Chidumika	Ibwaga	Community Health Worker
34.	Luciana Lechima	Ibwaga	Community Health Worker
35.	Elikano Kalaita	Ibwaga	Community Health Worker
36.	Dr. Sembiche	Mtanana	Health Facility In-Charge
37.	Sofia Chisongela	Mtanana	Community Health Worker
38.	Vaileth Katande	Mtanana	Community Health Worker
39.	Flora Chalia	Mtanana	Community Health Worker

40.	Elisha Muhimbano	Hogoro	Community Health Worker
41.	Judith Ruhama	Hogoro	Community Health Worker
Manyara region			
42.	Prosper Msuya	MBNP	Regional Coordinator
43.		MBNP	Regional Nutritionist
44.		MBNP	Regional M&E officer
45.	Mabula Msunga	Regional Secretariat	Regional Nutrition Officer
46.	Bashan Kinyunyu	Babati T.C	Ag. District Nutrition Officer/DNTFs team
47.	Elizabeth Amnae	Babati T.C	District Reproductive Health and Child Coordinator
48.	Frank Mchuno	Babati T.C	Medical Officer/DNTFs team
49.	Hindu Mbwego	CWCD	Executive Director
50.	Glory Valerian	CWCD	Social worker
51.	Adolf Kinale	CWCD	Nutritionist
52.	Dominic Kweka	Babati D.C	Executive Director
53.	Benito Kavenuke	Babati D.C	District Planning Office
54.	Stanley Msemo	Babati D.C	Asst. District Planning Office
55.	Bernadetha	Babati D.C	District Nutrition Officer
56.	Nyella	Babati D.C	Asst. District Nutrition Officer
57.	Semkondo Mgalla	FIDE	Executive Director
58.	Ibahim Shekhe	FIDE	M&E officer
59.	Catherine Mathias	FIDE	Social worker
60.	Yasinta Silvan	Mawemairo	Home Based Care provider
61.	Tatu Salim	Mawemairo	Community Health Worker
62.	Minori Athmani	Mawemairo	Community Health Worker
63.	Yahaya Issa	Mamire	Community Health Worker
64.	Yohana Kaiza	Mamire	Home Based Care provider
65.	Mwanahamisi Maige	Mamire	Community Health Worker
66.	Hasan Nangai	Endakiso	Community Health Worker
67.	Julita William	Endakiso	Community Health Worker
68.	Regina Mraki	Endakiso	Home Based Care provider
69.	Rose Bura	Dareda Kati	Home Based Care provider
70.	Paskarina Jacob	Dareda Kati	Community Health Worker
71.	Felista Sumaye	Dareda Kati	Community Health Worker
72.	Loema Ninga	Bermi	Home Based Care provider
73.	Veronica Christian	Bermi	Community Health Worker
74.	Emmanuel Philipo	Bermi	Community Health Worker
75.	Faustine Bathlomeo	Bermi	Community Health Worker
Morogoro region			
76.	Dr. Godfrey Mtey	Regional Secretariat	Regional Medical Officer
77.	Florence J. Saka	Regional Secretariat	Regional Nutrition Officer
78.	Amina Salehe	MBNP	Ag. Regional Coordinator
79.	Ahnes Mahembe	MBNP	Regional Nutritionist

80.	Deus Ngerangera	MBNP	Regional M&E officer
81.	Yona Mark	Morogoro D.C	Council Director
82.	Kasole Mango	Morogoro D.C	District Nutrition Officer
83.	Agnes Haule	Morogoro D.C	District Nursing Officer
84.	Othman Bohari	UMWEMA	Executive Director
85.	John Joseph	UMWEMA	M&E officer
86.	Felista Michael	UMWEMA	Nutritionist
87.	Tatu Hamis	Pangawe Village	Community Health Worker
88.	Saidi Juma	Pangawe Village	Community Health Worker
89.	Amos Jumanne	Pangawe Village	Health Facility In-Change
90.	Rehema Shaban	Pangawe Village	Village Executive Officer
91.	Ag.	Mvomero D.C	Council Director
92.	Niyonzima	Mvomero D.C	District Nutrition Officer
93.	Dr. Saweli Mtullu	Tanga AIDS Working Group	Executive Director
94.	Mr. Bulugu	Tanga AIDS Working Group	Project Coordinator
95.	Joyce P. Singili	Tanga AIDS Working Group	Social Worker
96.	Eligius Kiwale	Tanga AIDS Working Group	M&E officer
97.	Hamis A. Msali	Lusanga	Community Health Worker
98.	Mwanahamis Salum	Lusanga	Community Health Worker
99.	Hamis Kitabu	Lusanga	Community Health Worker
100.	Hatibu Haji	Kanga	Community Health Worker
101.	Rehema J. Machange	Kanga	Community Health Worker
102.	Ali juma	Kanga	Community Health Worker
103.	Mwanahawa Rashidi	Msufini	Community Health Worker
104.	Roger Maringa	Msufini	Home Based Care provider
105.	Nakuva Elisante	Msufini	Community Health Worker
106.	Mariam Chiduo	Msufini	Village Executive Officer
107.	Yohana Luka	Mgudeni	Community Health Worker
108.	Saidi Juma	Mgudeni	Community Health Worker
109.	Bakari Mkumba	Mgudeni	Home Based Care provider
110.	Selemani Alli	Mgudeni	Village Executive Officer
111.	Novast E. Mogella	Manza	Village Executive Officer
112.	Kibena Mahemu	Manza	Community Health Worker
113.	Ally Simba	Manza	Community Health Worker
114.	Sikitu Shomari	Manza	Home Based Care provider
115.	Desideria Daudi	Peko Misegese	Community Health Worker
116.	Issa Abdalah	Peko Misegese	Community Health Worker
117.	Flora Amiri	Peko Misegese	Community Health Worker
118.	Erasmi Kukoo	Kibaoni	Home Based Care provider
119.	Beatrice Kibua	Kibaoni	Community Health Worker
120.	Yolanda Mkwidu	Nyandira	Home Based Care provider
121.	Bonifasi Ng'atigwa	Nyandira	Community Health Worker
122.	Joyce Methodi	Nyandira	Community Health Worker

ANNEX 3: DATA COLLECTION TOOLS

CONFD

MODULE 1: HOUSEHOLD IDENTIFICATION COVER SHEET

HOUSEHOLD IDENTIFICATION ☐☐☐☐

REGION _____ ☐

DISTRICT _____ ☐

VILLAGE _____ ☐

NAME OF PRIMARY RESPONDENT (Code from roster in module 3): _____ ☐☐

Surname, First Name

TYPE OF HOUSEHOLD _____ ☐

INTERVIEW DETAILS - VISITS

	1	2	3	LAST VISIT
DATE				SIKU ☐☐
				MWEZI 1 1
				MWAKA 2 0 1 4
NAME OF ENUMERATOR:				CODE OF ENUMERATOR: ☐☐
OUTCOME OF INTERVIEW				FINAL OUTCOME OF INTERVIEW ☐
NEXT VISIT DATE				
TIME				TOTAL NUMBER OF VISITS ☐

HOUSEHOLD TYPE CODE:

1 MALE ADULT ONLY
2 FEMALE ADULT ONLY
3 MALE AND FEMALE ADULT
4 CHILD HEADED

OUTCOME OF INTERVIEW CODE:

1 COMPLETED
2 INCOMPLETE
3 ABSENT
4 REFUSED
5 COULD NOT LOCATE

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____ ☐	NAME _____ ☐	NAME _____ ☐	NAME _____ ☐

REGIONS CODE:

Morogoro ☐
Dodoma ☐
Manyara ☐

DISTRICT CODE:

Mvomero ☐	Gairo ☐	Kongwa ☐
Bahi ☐	Hanang ☐	Babati Uraban ☐

SIGNATURE OF ENUMERATOR _____ DATE: _____

SIGNATURE OF SUPERVISOR _____ DATE: _____

MODULE 2: INFORMED CONSENT

Informed Consent: *Before beginning the interview, it is necessary to introduce the household to the survey and obtain their consent to participate. Make it clear to them that their participation in the survey is voluntary. Please read the following statement in the language of interview:*

Thank you for the opportunity to speak with you. We are a research team from Mwanzo Bora Nutrition Program. We are conducting a survey to learn about food consumption, and nutrition of households in this area so that we can improve wellbeing of people in Tanzania. You have been randomly selected to participate in an interview. This means that your household was picked by chance from the list of all the households in your community. The interview includes questions on topics such as your family background, healthcare, food consumption and nutrition of women and children. We will ask these questions to the members in your household would be most knowledgeable to answer them. These questions in total will take approximately 1-2 hours to complete.

Your participation is entirely voluntary. Even if you refuse to participate, your decision will not affect your ability to benefit from other health or nutrition services. If you agree to participate, you can choose to stop at any time or to skip any questions you do not want to answer. If you agree to participate in the survey but don't want to answer a question, just say, "I don't want to answer that." It won't hurt my feelings. We will just move to the next question. Your answers will be completely confidential. We will collect your name and other information so that we can come back if we have more questions but we will not share information that identifies you with anyone else.

Do you have any questions about the study or what I have said? If in the future you have any questions regarding study and the interview, or concerns or complaints we welcome you to contact Mwanzo Bora Nutrition Program, by calling [+255 22 2666690] will leave one copy of this form for you so that you will have record of this contact information and about the study.

I _____, the enumerator responsible for the interview taking place on _____, 2014 certify that I have read the above statement to the respondents and they have consented to the interview. I pledge to conduct this interview as indicated on instructions and inform my supervisor of any problems encountered during the interview process.

Enumerator's Signature	Date
Respondent's Signature or Thumb Print	Date

If the household does not give consent to all of the data collection, stop the interview and inform your team leader. Team leaders will discuss the reason for this refusal and decide whether a partial data collection is possible for this household.

Consent form approved by…….. on ……..

MODULE 3: HOUSEHOLD ROSTER AND DEMOGRAPHICS

Household ID: ☐☐☐☐ **Resopondent ID:** ☐☐

Enumerator: Ask these questions about all household members. Choose one or two respondents as the primary and secondary respondents. Ask the primary or secondary respondent, whoever is most knowledgeable about the age, completed education, and other characteristics of household members. Ask these questions about all household members. First list names of all members of this household, beginning with the respondent, including children and infants. Start with primary respondent; continue with the secondary respondent, if applicable, and other members in descending order of age. When a household woman is named, complete questions on her children living in the household before going on to the next adult. When finished, ask the person responding if this is truly all the people living in this household and if there is any missing children or infants

First, we would like to ask you about each member of your household starting with you

No.	Name of household member? *[start with primary respondent, continue with the secondary respondent, if applicable, and other members in descending order of age]*	Relation to the Head of Household	Sex Male = 1 Female = 2	[NAME's] Age *(For adults enter actual age, below 5 years enter year and month)*	[NAME's] Marital status	Read and write?	Grade of education completed by [NAME]?	Slept in the net
	(1)	*(2)*	*(3)*	*(4) Years Months*	*(5)*	*(6)*	*(7)*	*(8)*
01		☐☐	☐	☐☐ ☐	☐	☐	☐☐	☐
02		☐☐	☐	☐☐ ☐	☐	☐	☐☐	☐
03		☐☐	☐	☐☐ ☐	☐	☐	☐☐	☐
04		☐☐	☐	☐☐ ☐	☐	☐	☐☐	☐
05		☐☐	☐	☐☐ ☐	☐	☐	☐☐	☐
06		☐☐	☐	☐☐ ☐	☐	☐	☐☐	☐
07		☐☐	☐	☐☐ ☐	☐	☐	☐☐	☐
08		☐☐	☐	☐☐ ☐	☐	☐	☐☐	☐
09		☐☐	☐	☐☐ ☐	☐	☐	☐☐	☐
10		☐☐	☐	☐☐ ☐	☐	☐	☐☐	☐
11		☐☐	☐	☐☐ ☐	☐	☐	☐☐	☐
12		☐☐	☐	☐☐ ☐	☐	☐	☐☐	☐
13		☐☐	☐	☐☐ ☐	☐	☐	☐☐	☐
14		☐☐	☐	☐☐ ☐	☐	☐	☐☐	☐
15		☐☐	☐	☐☐ ☐	☐	☐	☐☐	☐
16		☐☐	☐	☐☐ ☐	☐	☐	☐☐	☐

CODES:

M3-02: Relationship to the head of household

1= Head of Household
2= Husband
3= Wife
4= Co-Wife
5= Biological child
6= Adopted child
7= Step child
8= Grandchild
9= Son or Daughter-in -law
10= Sibling
11= Parent
12= Parent-in-law
13= Other related
14= Other unrelated

M3-05: Marital status

1= Married
2= Living together
3= Divorced
4= Separated
5= Widowed
6= Never married and Never lived together
7= No relationship

M3-06: Literacy

1= Can read and write
2= Can sign name only
3= Can read only
4= Cannot read and write
5= N/A

M3-07: Education leve

01= None
02= Nursery School
03= Standard 1
04= Standard 2
05= Standard 3
06= Standard 4
07= Standard 5
08= Standard 6
09= Standard 7
10= Standard 8
11= Training after primary education
12= Form I
13= Form II
14= Form III
15= Form IV
16= FormV
17= Form VI
18= Training after secondary Education
19= University or equivalent
97= Other
98= Don't know

MODULE 4: HOUSEHOLD HUNGER SCALE

Enumerator: Ask of the person responsible for Household Food Preparation

Household ID ☐☐☐☐ **Respondent ID:** ☐☐

	QUESTION	RESPONSE CODE		SKIP TO
1	How many meals does your household usually have per day? ***(1 – 4 MEALS) More than 4 meals enter 4***		☐	
2	How often in the last year did you have problems in Satisfying the food needs of the household?	NEVER 1 SELDOM 2 OFTEN 3 ALWAYS 4	☐	
3	In the past month (4 weeks/30 days) was there ever no food to eat of any kind in your house because of lack of resources to get food?	YES . . . . . 1 NO 2	☐	→ 5
4	How often did this happen in the past month (4 weeks/30 days)?	RARELY (1-2 TIMES) ..... 1 SOMETIMES (3-10 TIMES) 2 OFTEN (MORE THAN 10 TIMES)…. 3	☐	
5	In the past month (4 weeks/30 days) did you or any household member go to sleep at night hungry because there was not enough food?	YES ..... 1 NO 2	☐	→ 7
6	How often did this happen in the past month (4 weeks/30 days)?	RARELY (1-2 TIMES) ..... 1 SOMETIMES (3-10 TIMES) 2 OFTEN (MORE THAN 10 10 TIMES)…. 3	☐	
7	In the past month (4 weeks/30 days) did you or any household member go a whole day and night without eating anything at all because there was not enough food?	YES ..... 1 NO 2	☐	
8	How often did this happen in the past [4 weeks/30 days]?	RARELY (1-2 TIMES) 1 SOMETIMES (3-10 TIMES) 2 OFTEN (MORE THAN 10 TIMES)…. 3	☐	

End of Module

MODULE 5: INDIVIDUAL DIETARY DIVERSITY SCORE (IDDS) TOOL FOR CHILDREN

Enumerator: Ask of the person responsible for Household Food Preparation

Household ID: ☐☐☐☐ **Respondent ID:** ☐☐

CHILD'S ID CODE FROM THE HH ROSTER ☐☐ **Age of the child in months** ☐☐

Q1 Date of birth of the child

Day		Month		Year			

Q2 ***Check from HH roaster***

Q3 Age of the child in months ☐☐

Now I would like to ask you about the types of foods that your child ate yesterday during the day and or at night

[Read the list of foods. Write "1" (one) in the box on the right if any child under five years of age in the household ate the food in the question. Write "0" (zero) in the box on the right if no child under five year of age in the household ate the food]

Na.	Food Group	Examples of Foods	List the Food Items Mentioned	"1" If Yes "0" If No
1	Cereals; Roots and tubers, and plantains	Any: ugali, bread, rice noodles, biscuits, or any other foods made from millet, sorghum, maize, rice, wheat…etc? Any round/sweet potatoes, yams, manioc, cassava, cooked bananas/matoke or any other food made from roots or tubers, or		☐
2	Vegetables	Any vegetables? (mchicha, kisamvu, matembele, kabichi, carrot, mboga mboga za aina yoyote)		☐
3	Fruits	Any fruits? (Embe, papaya, avocado, fenesi, stafeli, ndizi mbivu)		☐
4	Meat, poultry, offal, Fish and seafood	Any beef, pork, lamb, goat, rabbit wild game, chicken, duck, or other birds, liver, kidney, heart, intestines or other organ meats? Any fresh or dried fish or shellfish?		☐
5	Eggs	Any eggs?		☐
6	Pulses, legumes, nuts	Any foods made from beans, peas, lentils, or nuts?		☐
7	Milk and milk products	Any cheese, yogurt, milk or other milk products?		☐
8	Oil/fats	Any foods made with oil, fat, or butter, coconut stew?		☐

End of Module

MODULE 6: DIETARY DIVERSITY FOR WOMEN OF 15-49 YEARS OF AGE

Enumerator: Apply to **one** woman of reproductive age (15-49 years) in the Household

Household ID: ☐☐ **Respondent ID:** ☐☐

Now I would like to ask you about the types of foods that a woman (age 15 – 49 years) ate yesterday during the day and at night

[Read the list of foods. Write "1" (one) in the box on the right if a woman of 15-49 years of age in the household ate the food in the question. Write "0" (zero) in the box on the right if no woman of 15-49 year of age in the household ate the food]

No.	Food Group	Examples of Foods	List the Food Items Mentioned	"1" If Yes "0" If No
1	Cereals, Roots and tubers, and plantains	Any: ugali, bread, rice noodles, biscuits, or any other foods made from millet, sorghum, maize, rice, wheat…etc? Any round/sweet potatoes, yams, manioc, cassava, cooked bananas/ matoke or any other food made from roots or tubers, or plantains?		☐
2	Any dark green leafy vegetables?	Dark green leafy vegetables, including wild forms + locally available vitamin A rich leaves such as amaranth, cassava leaves, spinach, matembele, majani ya kunde		☐
3	Any vitamin A rich fruits and vegetables?	Pumpkin, carrot, squash, or sweet potato that are orange inside + other locally available vitamin A rich vegetables Ripe mango, apricot (fresh or dried), ripe papaya, dried peach, and 100% fruit juice made from these + other locally available vitamin A rich fruits		☐
4	Any fruits and vegetables?	Other vegetables (e.g. tomato, onion, eggplant) + other locally available vegetables Other fruits, including wild fruits and 100% fruit juice made from these Any fruits? (embe, papaya, avocado, fenesi, stafeli, ndizi mbivu…)		☐
5	Meat, poultry, offal, Fish and seafood	Any beef, pork, lamb, goat, rabbit wild game, chicken, duck, or other birds Any fresh or dried		☐
6	Any organ meat?	Liver, kidney, heart, intestines or other organ meats or blood-based foods		☐
7	Eggs	Any eggs?		☐
8	Pulses, legumes, nuts	Any foods made from beans, peas, lentils, or nuts?		☐
9	Milk and milk products	Any cheese, yogurt, milk or other milk products?		☐
10	Sugar	Any sugar added?		☐
11	Have you or any other person in the household attended any training / seminar that taught how to develop and manage home gardens of essential nutritional agricultural crops?		1 YES 2 N0 3 Don't Know	☐ → 15 → 15
12	If yes in question 11 above, who provided the training		1 Africare/Mwanzo Bora 2 USAID/TAPP 3 Ministry of Agriculture 4 Other.....	☐
13	Do you have a garden that you have established and managed as a result of the training/seminar you attended?		1 YES 2 N0 3 Don't Know	☐
14	If yes in question 13 above, what type of crops you have grown in your garden ***(tick as many as possible)***		1 Carrots 2 Orange sweet potatoes 3 Amaranths 4 Pumpkins 5 Rosella	☐ ☐ ☐ ☐ ☐

		6	Pawpaw fruit		☐	
		7	Mnavu		☐	
		8	Tomatoes		☐	
		9	Sweet potato leaves		☐	
		10	Other crops		☐	
15	In your training/seminar did you learn how to raise and manage animals/livestock/fish that are rich in vitamin A such as rabbits and poultry?	1	YES			
		2	N0		☐	→ 18
		3	Don't Know			→ 18
16	Do you raise any livestock rich in Vitamin A	1	YES			
		2	N0		☐	
		3	Don't Know			
17	Which livestock/fish do you raise?	1	Rabbits			
		2	Poultry		☐	
		3	Fish			
		4	Other crops			
18	Ask the respondent to provide you with tea spoon full of edible salt		0 PPM (No Iodine present)	1		
			Under 15 PPM	2		
	Test the salt for Iodine and observe the PPM (Parts Per Million)		15 PPM or more	3	☐	
			No edible salt at home	4		
			Salt was not tested	6		

MODULE 7: BREAST FEEDING PRACTICE

Enumerator: Ask Caregivers of each child under five years of age in Household. Enumerator should carry multiple copies of this Module and use with all children under five years of age in the Household

NO.	QUESTION	RESPONSE CODE	SKIP TO
1	*HOUSEHOLD ID CODE FROM THE HH ROSTER COVER*	☐☐☐☐	
2	*MOTHER'S ID CODEFROM THE HH ROSTER*	☐☐	
3	*CHILD'S ID CODE FROM THE HH ROSTER*	☐☐	
4	*CHILD'S SEX FROM THE HH ROSTER*	MALE..... 1 FEMALE..... 2 ☐	
5	Have you ever breastfeed (CHILD'S NAME)?	YES..... 1 NO..... 2 ☐ DON'T KNOW..... 8	→ END → INTERVIEW
6	How long after birth did you first put (CHILD'S NAME) to the breast? *IF LESS THAN 1 HOUR, RECORD '00' HOUR and '00' DAY* *IF LESS THAN 24 HOURS, RECORD HOURS and '00' DAY* *OTHERWISE, RECORD DAYS and '00' HOUR*	HOURS..... ☐☐ DAYS..... ☐☐	
7	Was your milk flowing when you first put (CHILD'S NAME) to the breast?	YES..... 1 NO..... 2 ☐ DON'T KNOW..... 8	
8	Before your milk began flowing, was (CHILD'S NAME) given anything to drink other than breast milk?	YES..... 1 NO..... 2 ☐ DON'T KNOW..... 8	→ 10 → 10
9	What was (CHILD'S NAME) given to drink? Anything else? RECORD ALL LIQUIDS MENTIONED	*(Mentioned=1, Not mentioned=2)* 1 MILK (OTHER THAN BREAST MILK)..... 1 2 2 PLAIN WATER..... 1 2 3 SUGAR OR GLUCOSE WATER..... 1 2 4 GRIPE WATER..... 1 2 5 SUGAR-SALT-WATER SOLUTION..... 1 2 6 FRUIT JUICE..... 1 2 7 INFANT FORMULA..... 1 2 8 TEA/INFUSIONS..... 1 2 9 HONEY..... 1 2 10 OTHER (SPECIFY..... 1 2	
10	Are you still breastfeeding (CHILD'S NAME)?	YES..... 1 NO..... 2 ☐ DON'T KNOW..... 8	→ 13 → 13
11	How many times did you breastfeed last night between sunset and sunrise? *IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER*	*NUMBER OF NIGHT TIME FEEDINGS* ☐☐	
12	How many times did you breastfeed yesterday during the daylight hours? *IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER*	*NUMBER OF DAY TIMEFEEDINGS* ☐☐	
13	Did (CHILD'S NAME) drink anything from a bottle with a nipple yesterday or last night?	YES..... 1 NO..... 2 ☐ DON'T KNOW..... 8	

14	For how many months did you breastfeed (CHILD'S NAME)? ***if below 1 month enter "00"***	MONTHS Still breastfeeding 97	
15	How old was (CHILD'S NAME) when s/he was first fed something other than breast milk? *INCLUDES : juice, cow's milk water, sugar water, solid foods or anything else* *IF LESS THAN 1 MONTHS, RECORD '00' MONTH*	MONTHS Not started giving anything…97 DON'T KNOW…… 98	→ END → END → END
16	Now I would like to ask you about drinks and foods that [NAME] took yesterday during daytime or at night : *You can tick more than one*	1 Drinking water 2 Infant formulas (tinned) 3 Special food for children that is sold 4 Milk (other than breast milk) 5 Any other porridge	
17	How many times did [NAME] eat solid and or soft foods yesterday during daytime and or at night? If more than 7 record 7		

END OF MODULE

MODULE 8: MALARIA PREVENTION

Enumerator: Apply to one woman of reproductive age (15-49 years) in the Household or any other responsible person

NO.	QUESTION	RESPONSE CODE	SKIP TO
1	HOUSEHOLD ID CODE FROM THE HH ROSTER COVER SHEET		
2	RESPONDENT'S ID CODE FROM THE HH ROSTER		
3	Does your household have any mosquito nets (ITN) that can be used while sleeping?	YES…… 1 NO…… 2	→ 8
4	How many mosquito nets (ITN) does your household have?	**NUMBER OF NETS**	
5	ASK RESPONDENT TO SHOW YOU THE NET(S)	OBSERVED…… 1 NOT OBSERVED…… 2	
6	Since you got the mosquito nets (ITN), were they ever soaked or dipped in a liquid to repel mosquitoes or bugs?	YES…… 1 NO…… 2 DON'T NO…… 8	
7	Did anyone sleep under these mosquito nets (ITN) last night?	YES…… 1 NO…… 2 DON'T NO…… 8	
8	At any time in the past 12 months, has anyone sprayed the interior walls of your dwelling against mosquitoes?	YES…… 1 NO…… 2 DON'T NO…… 8	

END OF MODULE

MODULE 9: SELF-REPORTED HANDWASHING BEHAVIOR

NO.	QUESTION	RESPONSE CODE	SKIP TO
1	HOUSEHOLD ID CODE FROM THE HH ROSTER COVER SHEET		
2	RESPONDENT'S ID CODE FROM THE HH ROSTER		
3	Have you used soap to wash your hands at least once since this time yesterday?	YES..... 1 NO..... 2 ☐ DON'T KNOW..... 98	→ 8 → 8
4	Under what circumstances did you last use soap? SPONTANEOUS RESPONSE. DO NOT READ ANSWERS ALOUD	(Mentioned = 1, Not mentioned = 2) 1 BATHING A CHILD 1 2 2 BATHING ONESELF 1 2 3 AFTER USING LATRINE 1 2 4 AFTER CLEANING BABY'S BOTTOM 1 2 5 AFTER CLEANING LATRINE 1 2 6 AFTER RETURNING HOME 1 2 7 BEFORE PREPARING FOOD / COOKING 1 2 8 BEFORE FEEDING CHILDREN 1 2 9 WASHING CHILD'S HANDS BECAUSE THE LOOK OR FEEL DIRTY 1 2 10 CLEANING DISHES 1 2 11 DOING LAUNDRY 1 2 12 WASHING MY HANDS BECAUSE THEY LOOK 1 2 13 OTHER (SPECIFY) 1 2	
5	Under what other circumstances did you use soap to wash your hands since this time yesterday? SPONTANEOUS RESPONSE. DO NOT READ ANSWERS ALOUD ***If the respondent mentions "washing my hands" OR "washing my children's hands", PROBE THEM TO SPECIFY WHY (was it because they were simply dirty or was a particular task performed?)*** ***CIRCLE ALL THAT APPLY AND RECORD WHETHER IT WAS MENTIONED OR NOT***	BATHING A CHILD 1 BATHING ONESELF 2 AFTER USING LATRINE 3 AFTER CLEANING BABY'S BOTTOM 4 AFTER CLEANING LATRINE 5 AFTER RETURNING HOME FROM OUTSIDE 6 ☐ BEFORE PREPARING FOOD / COOKING 7 BEFORE FEEDING CHILDREN 8 WASHING CHILD'S HANDS BECAUSE THEY LOOK OR FEEL DIRTY 9 CLEANING DISHES 10 DOING LAUNDRY 11 WASHING MY HANDS BECAUSE THEY LOOK OR FEEL DIRTY 12 OTHER (SPECIFY) 96 ..... Don't know 98	
6	When do you wash your hands with soap/ash? SPONTANEOUS RESPONSE. DO NOT READ ANSWERS ALOUD ***CIRCLE ALL THAT APPLY AND RECORD WHETHER IT WAS MENTIONED OR NOT***	***(Mentioned=1, Not mentioned=2)*** 1 NEVER 1 2 2 BEFORE FOOD PREPARATION 1 2 3 BEFORE FEEDING CHILDREN 1 2 4 AFTER DEFECATION 1 2 5 AFTER ATTENDING TO A CHILD WHO HAS DEFECATED 1 2 6 BEFORE OR AFTER EATING 1 2 7 OTHER (SPECIFY) 1 2	

MODULE 10: WOMEN'S HEALTH SERVICES AND NUTRITIONAL BEHAVIOUR

Enumerator: Apply to each women of reproductive age (15-49 years) in the Household. Enumerator should carry multiple copies of this Module and use with all women of reproductive age in the Household

NO.	QUESTION	RESPONSE CODE			SKIP TO
1	HOUSEHOLD ID CODE				
2	RESPONDENT'S ID CODE FROM THE HH ROSTER				
3	Have you been pregnant before?	YES	1		
		NO	2		END INTERVIEW
		DON'T KNOW	98		END INTERVIEW
4	When was the last time you were pregnant?	MONTHS AGO ……..……..			
		YEARS AGO ……..……..			
5	Did the last pregnancy result in a live birth?	YES ……..……..	1		
		NO ……..……..	2		
6	Last time you were pregnant, did you see anyone for antenatal care?	YES ……..……..	1		
		NO ……..……..	2		GO 8
7	Where did you receive antenatal care for the last pregnancy? Anywhere else? RECORD ALL MENTIONED AND SKIP 8		YES	NO	
		HOME	1	2	
		HEALTH FACILITY	1	2	
		CHW	1	2	
		DON'T KNOW	1	2	
		OTHER (SPECIFY)……	1	2	
		……			
8	Why did you not seek antenatal care?		YES	NO	
		HEALTH FACILITIES ARE VERY FAR AWAY FROM MY HOME	1	2	
		THE COSTS ARE TOO HIGH	1	2	
	LET RESPONDENT EXPLAIN WIHTOUT READING OUT THE OPTIONS AND RECORD ALL MENTIONED	POOR QUALITY OF HEALTH SERVICES	1	2	
		THERE ARE SO MANY SICKNESSES NOWADAYS AND THEY OCCUR VERY OFTEN	1	2	
		SHORTAGE OF MEDICINES	1	2	
		SHORTAGE OF FACILITIES	1	2	
		UNFRIENDLY PERSONNEL	1	2	
		INCOMPETENT PERSONNEL	1	2	
		CORRUPTION OF MEDICAL PERSONNEL	1	2	
		OTHER (SPECIFY	1	2	
		……			
9	How many months pregnant were you when you first received antenatal care for the last pregnancy?	MONTHS			
		DON'T KNOW		98	

10	How many times did you receive antenatal care during the last pregnancy?	NUMBER OF TIMES DON'T KNO	 98	
11	Prior to the last pregnancy, did you take any iron syrup or iron/folate tablets ?	YES 1 NO 2 DON'T KNOW 8		 → 19 → 19
12	Where did you get the iron syrup or iron/folate tablets?	FROM ANC CLINIC..... 1 BOUGHT FROM PHARMACY..... 2 OTHER (SPECIFY)..... 8		
13	Why did you take the iron/folate tablets?	PREPARING FOR PREGNANCY..... 1 DIAGNOSED WITH ANEMIA..... 2 ADVICE FROM HEALTH PROVIDER.... 3 FAMILY MEMBER OR FRIEND..... 4 OTHER (SPECIFY)..... 8		
14	What is tha main source of the information on the importance of using Vitamin Iron/ folic Acid tablets/syrup?	General public radio 1 SBCC radio 2 Mwanzo Bora related meeting 3 National Immunization campagne 4 Other Mention 8		
15	During the whole pregnancy, how long did you take the iron syrup or the iron/folate tablets? ***IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER OF DAYS***	DAYS DON'T KNOW #		
16	How often did you take the iron syrup or the iron/folate tablets?	DAILY..... 1 2-6 TIMES A WEEK..... 2 ONCE A WEEK..... 3 LESS THAN ONCE A WEEK..... 4		
17	Did you ever stop taking the iron/folate tablets??	YES..... 1 NO..... 2 DON'T KNOW 8		 → 19 → 19
18	What made you stop taking the iron/folate tablets?	NO LONGER NEEDED/FELT BETTER..... 1 HAD SIDE EFFECTS..... 2 RAN OUT AND COULD NOT GET... 3 OTHER (SPECIFY)..... 4 ..... DON'T KNOW..... 8		
19	During your last pregnancy, were you told that you were anemic?	YES..... 1 NO..... 2 DON'T KNOW..... 8		
20	During your last pregnancy, did you take the iron syrup or the iron/folate tablets?	YES..... 1 NO..... 2 DON'T KNOW..... 8		 → **23** → **23**
21	During the whole pregnancy, how long did you take the iron syrup or the iron/folate tablets? ***IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER OF DAYS***	DAYS DID NOT USE # DON'T KNOW #		
22	Why did you take the iron/folate tablets?	PREPARING FOR PREGNANCY..... 1 DIAGNOSED WITH ANEMIA..... 2 ADVICE FROM HEALTH PROVIDER.... 3 FAMILY MEMBER OR FRIEND..... 4 OTHER (SPECIFY)..... 8		

23	During this pregnancy, did you take any drugs to keep you from getting malaria?	YES..... 1 NO..... 2 ☐ DON'T KNOW..... 8	→ End Module → End Module	
24	What drugs did you take? ***RECORD ALL MENTIONED*** ***IF TYPE OF DRUG IS NOT DETERMINED, SHOW PICTURES OF TYPICAL ANTIMALARIAL DRUGS TO RESPONDENT***	(Mentioned=1, Not mentioned=2) SP/FANSIDAR..... ☐ ☐ CHLOROQUINE..... ☐ ☐ OTHER (SPECIFY)..... ☐ ☐ ..... DON'T KNOW..... ☐ ☐		
25	How many times did you take (NAME OF THE DRUG) during the last pregnancy?	SP/FANSIDAR..... ☐☐ CHLOROQUINE..... ☐☐ OTHER (SPECIFY)..... ☐☐		

MODULE 11: VITAMIN A AND DEWORMING

Enumerator: Ask of Caregivers of each child under five years in the Household.
Enumerator should carry multiple copies of this Module and use with all children under five in the Household

NO.	QUESTION	RESPONSE CODE	SKIP TO
1	HOUSEHOLD ID CODE	☐☐☐☐	
2	CAREGIVER'S ID CODE FROM THE HH ROSTER	☐☐	
3	CHILD'S ID CODE FROM THE HH ROSTER	☐☐	
4	Child's sex from the hh roster	MALE..... 1 FEMALE..... 2 ☐	
5	Under nomal circumstances children are required to be given deworming tablets at what age?	Years ☐ Months ☐ DON'T KNOW 8 ☐	
6	Has (CHILD'S NAME) taken any pill for intestinal worms in the last six months?	YES..... 1 NO..... 2 ☐ DON'T KNOW 8	
7	Under nomal circumstances children are required to be given Vitamin A drops/ tablets at what age?	Years ☐ Months ☐ DON'T KNOW 8 ☐	
8	Has (CHILD'S NAME) taken any Vitamin A in the last six months?	YES..... 1 NO..... 2 ☐ DON'T KNOW 8	
9	If yes in Q6 above, where mainly did you get the information on the importance of using Vitamin A?	General public radio 1 SBCC radio 2 Mwanzo Bora related meeting 3 ☐ National Immunization campagne 4 Other Mention 8	

END OF INTERVIEW

MODULE 12: ANTHROPOMETRY FOR CHILDREN

Enumerator: Apply to each child aged 0 – 59 months in the Household.
Enumerator should carry multiple copies of this Module and use with all children aged 0-59 months in the Household

NO.	QUESTION	RESPONSE CODED	SKIP TO
1	HOUSEHOLD ID CODE FROM THE HH ROSTER COVER SHEET	☐☐☐☐	
2	CAREGIVER'S ID CODE FROM THE HH ROSTER	☐☐	
3	CHILD'S ID CODE FROM THE HH ROSTER	☐☐	
4	*We would like to measure (CHILD'S NAME) weight and height. Your participation is voluntary and you may stop at any time.* *Your measurements will be kept confidential.* **Will you allow (CHILD'S NAME) to be measured?**	CONSENT GRANTED..... 1 ***Make sure to get a signature or thumbprint*** ☐ REFUSED..... 2	**END INTERVIEW**
5	What is (CHILD'S NAME)'s sex?	MALE..... 1 FEMALE..... 2 ☐	
6	I would like to ask you some question about ***(CHILD'S NAME).*** In what month and year was ***(CHILD'S NAME)*** born? (Pull from Roster)	☐☐ DAY ☐☐ MONTH ☐☐☐☐ YEAR	
7	How many months old is (CHILD'S NAME)? **RECORD AGE IN COMPLETED MONTHS**	MONTHS ☐☐	
8	*CHECK P6. IS THE CHILD LESS THAN 60 MONTHS?*	YES..... 1 NO..... 2 ☐ DON'T KNOW..... 8	
9	What was the gestational age in months of the child's pregnancy i.e. How old in months was the pregnancy when the [NAME] was born?	☐	
10	DOES CHILD HAVE EDEMA?	YES..... 1 NO..... 2 ☐ DON'T KNOW..... 8	
11	WEIGHT IN KILOGRAMS WEIGH (CHILD'S NAME)	DON'T KNOW 99.8 ☐☐.☐ Kg	
12	*CHILDREN LESS THAN 24 MONTHS SHOULD BE MEASURED LYING DOWN; CHILDREN >= 24 MONTHS SHOULD BE MEASURED STANDING UP* MONTHS SHOULD BE MEASURED STANDING UP HEIGHT IN CENTIMETERS *MEASURE (CHILD'S NAME)*	☐☐☐.☐ Cm DON'T KNOW 999.8	
13	When (CHILD'S NAME) was born, was he/she very large, larger than average, average, smaller than average, or very small?	VERY LARGE..... 1 LARGER THAN AVERAGE..... 2 ☐ SMALLER THAN ..... 3 AVERAGE..... 4 VERY SMALL..... 5 DON'T KNOW..... 8	
14	Was (CHILD'S NAME) weighed at birth?	YES..... 1 NO..... 2 ☐ DON'T KNOW..... 8	**END INTERVIEW**
15	How much did (CHILD'S NAME) weigh? ***RECORD WEIGHT IN KILOGRAMS FROM HEALTH CARD, IF AVAILABLE***	KG from Card ☐.☐☐☐ Kg KG from Recall ☐.☐☐☐ Kg DON'T KNOW 9.998	

MODULE 13: ANTHROPOMETRY AND ANEMIA FOR WOMEN

Enumerator: Apply to each women of reproductive age (15-49 years) in the Household.
Enumerator should carry multiple copies of this Module and use with all women of reproductive age in the Household

NO.	QUESTION	RESPONSE CODE	SKIP TO
1	HOUSEHOLD ID CODE	☐☐☐☐	
2	WOMAN'S ID CODE FROM THE HH ROSTER	☐☐	
3	Are you pregnant?	YES..... 1 NO..... 2 DON'T KNOW..... 8 ☐	
4	Are you beastfeeding	YES..... 1 NO..... 2 DON'T KNOW..... 8 ☐	
5	We would like to weigh and measure YOU. Your participation is voluntary and you may stop at any time. Your measurements will be kept confidential. *Do you agree to be measured?*	YES..... 1 NO..... 2 ☐	
6	Weight in kilograms *Weigh <you>*	☐☐☐.☐ Kg	
7	Height in centimeters *Measure <you>*	☐☐☐.☐ Cm	
8	MUAC **(if not pregnant or with birth in the preceeding two weeks)**	☐☐.☐ Cm	
9	Is woman less than 18 years? (pull from HH roster)	YES..... 1 NO..... 2 ☐	
10	Is woman < 18 (pull from HH roster)	MARRIED..... 1 Never MARRIED..... 2 ☐	
11	**If Age <18 and Never Married; Caregiver must give consent:** As part of this survey, we are asking people all over the country to Take an anemia test. Anemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This survey will assist the government to develop programs to prevent and treat anemia. For the anemia testing, we will need a few drops of blood from a finger. The equipment used to take the blood is clean and completely safe. It has never been used before and will be thrown away after each test. The blood will be tested for anemia immediately, and the result will be told to you and (NAME OF ADOLESCENT) right away. The result will be kept strictly confidential and will not be shared with anyone other than members of our survey team. Do you have any questions? You can say yes to the test for (NAME OF ADOLESCENT), or you can say no. It is up to you to decide.	CONSENT GRANTED..... 1 REFUSED..... 2 ☐ **Signature/Thumbprint**	END INTERVIEW

	If the respondent is age >= 18 or married, consent should be obtained from the respondent:		
12	As part of this survey, we are asking people all over the country to take an anemia test. Anemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This survey will assist the government or chronic disease. This survey will assist the government		
		CONSENT GRANTED..... 1 ☐	
	For the anemia testing, we will need a few drops of blood from a finger. The equipment used to take the blood is clean and completely safe. It has never been used before and will be thrown away after each test.	REFUSED..... 2 ☐	END INTERVIEW
	The blood will be tested for anemia immediately, and the result will be told to you right away. The result will be kept strictly confidential and will not be shared with anyone other than members of our survey team.		
	Do you have any questions?	**Signature/Thumbprint**	
	You can say yes to the test, or you can say no. It is up to you to decide.		
	Will you take the anemia test?		
13	Record hemoglobin level here	G/DL ☐☐.☐	
		NOT PRESENT 97.5	
		REFUSED 98.6	
		OTHER 98.7	

MODULE 14: PARTICIPATION OF MEN			
Ask one man in a family who is a father of under five years child			
No.	QUESTION	RESPONSE	GO
1	HOUSEHOLD ID	☐☐☐☐	
2	MAN'S CODE FROM THE ROSTER	☐☐	
3	Name of the child and code	Name of the child Code of the child ☐☐	
4	During the pregnance of this child, did her mother attended any clinic for investigation and advice?	YES 1 NO 2 ☐	→ 6
		DON'T KNOW 8	→ 6
5	Did you happen to go with her in any of the visits?	YES 1 NO 2 ☐	
6	Did the (NAME's) delivery took place at the health facility?	Hospital/Health facility 1 Other ..... 2 ☐ DON'T KNOW 8	
7	When chilld is experincing diarrhea, is she/he given less than usual to drink, about the same amount, or more than usual to drink?	More than usual 1 About the same 2 Less than usual 3 ☐ No drink at all 4 DON'T KNOW 8	

MODULE 15: DECISIONS AT THE HOUSEHOLD

Enumerator: The purpose of this module is to get additional information about decision making within households.

	Ask for all categories of activities before asking If household does not engage in that particular activity, enter code for "Decision not made" and proceed to next activity.	When decisions are made regarding the following aspects of household life, who is it that normally takes the decision?	To what extent do you feel you can make your own personal decisions regarding these aspects of household life if you want(ed) to?
		1 Mainly male/husband 2 Mainly women/wife 3 Husband and wife jointly 4 Someone else in the household 5 Jointly with someone else in the household 6 Jointly with someone else outside the	1 Not at all 2 Small extent 3 Medium extent 4 To a great extent
S/N	UZALISHAJI WA KILIMO		
1	What inputs to buy for agricultural production?		
2	When, how much or who would take crops to the market		
3	To sell livestock		
5	Your own wage or salary employment?		
6	Minor household expenditures?		
7	What to do if you have a serious health problem?		
8	How to protect yourself from violence?		
9	Whether and how to express religious faith?		
10	What kind of tasks you will do on a particular day?		
11	Whether or not to use family planning to space or limit birth?		
12	What food and how much to purchase?		
13	What food, how much, and how to consume food for yourself?		
14	What food, how much, and how to consume food for children?		
15	What to do if your children have a serious health problem?		

ANNEX 4: ETHICAL CLEARANCE CERTIFICATE

THE UNITED REPUBLIC OF TANZANIA

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20th January 2015

Dr Stigmata C Tenga
Process Consultants and Facilitators
C/O Africare: Mwanzo Bora Nutrition Program
Galu Street, Plot No. 44 ADA Estate P O Box 63187,
DAR ES SALAAM

CLEARANCE CERTIFICATE FOR CONDUCTING MEDICAL RESEARCH IN TANZANIA

This is to certify that the research entitled: Mwanzo Bora Nutrition Program Mid Term Evaluation in Tanzania. (Tenga S C *et al*), has been granted ethical clearance to be conducted in Tanzania.

The Principal Investigator of the study must ensure that the following conditions are fulfilled:

1. Progress report is submitted to the Ministry of Health and the National Institute for Medical Research, Regional and District Medical Officers after every six months.
2. Permission to publish the results is obtained from National Institute for Medical Research.
3. Copies of final publications are made available to the Ministry of Health & Social Welfare and the National Institute for Medical Research.
4. Any researcher, who contravenes or fails to comply with these conditions, shall be guilty of an offence and shall be liable on conviction to a fine. NIMR Act No. 23 of 1979, PART III Section 10(2).
5. Sites: 20 Districts of Manyara Dodoma and Manyara regions in Tanzania.

Approval is for one year: 20th January 2015 to 19th January 2016.

Name: Dr Mwelecele N Malecela

Signature
CHAIRPERSON
MEDICAL RESEARCH
COORDINATING COMMITTEE

Name: Dr Margaret E Mhando

Signature
Ag CHIEF MEDICAL OFFICER
MINISTRY OF HEALTH, SOCIAL WELFARE

CC: **RMO**
DED
DMO

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