



NUTRITION AND POVERTY REDUCTION IN NORTHERN GHANA Evaluation

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USAID/GHANA EVALUATE FOR HEALTH NUTRITION AND POVERTY REDUCTION IN NORTHERN GHANA EVALUATION

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NUTRITION AND POVERTY REDUCTION IN NORTHERN GHANA EVALUATION

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USAID/Ghana Evaluate for Health Project

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Cover Photo: *Mother-to-Mother Support Group in Northern Region. Credit: MSI Technical Director* ██████████
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ACRONYMS

ANC	Antenatal Care
AWP	Annual Work Plan
CAP	Community Action Plan
CHN	Community Health Nurses
CHPS	Community-Based Health Planning and Services
CHV	Community Health Volunteers
CLTS	Community-Led Total Sanitation
CMAM	Community Management of Acute Malnutrition
DDS	Dietary Diversity Score
DEHO	District Environmental Health Officer
DHIMS	District Health Information Management System
DHMT	District Health Management Team
DHS	Demographic Health Survey
DPCU	District Planning and Coordinating Unit
DWST	District Water and Sanitation Team
EA	Enumeration Area
ENA	Essential Nutrition Actions
Evaluate	Evaluate for Health
FGD	Focus Group Discussion
FTF	Feed the Future
FTFSG	Father-to-Father Support Group
G2G	Government-to-Government
GC	Global Communities
GDHS	Ghana Demographic and Health Survey
GHS	Ghana Health Service
GHS	Ghana cedi
GoG	Government of Ghana
HPNO	Health, Population and Nutrition Office
HQ	Headquarters
ICT	Information Communication Technology
IGF	Internally Generated Funds
IP	Implementing Partner
IYCF	Infant and Young Child Feeding

KII	Key Informant Interview
LBW	Low Birth Weight
LEAP	Livelihood Empowerment Against Poverty
LGV	Leafy Green Vegetables
M&E	Monitoring and Evaluation
METSS	Monitoring, Evaluation and Technical Support Services
MICS	Multiple Indicator Cluster Survey
MMDA	Metropolitan Municipal and District Assemblies
MOH	Ministry of Health
MTDP	Medium-Term Development Plan
MTMSG	Mother-to-Mother Support Group
NRCC	Northern Regional Coordinating Council
OD	Open Defecation
ODF	Open-Defecation-Free
OFSP	Orange-Fleshed Sweet Potato
PBS	Population-Based Survey
PFM	Public Financial Management
RING	Resiliency in Northern Ghana (USAID)
RPCU	Regional Planning and Coordinating Unit
SPRING	Strengthening Partnerships, Results and Innovations in Nutrition Globally
SS	Supportive Supervision
TA	Technical Assistance
TBA	Traditional Birth Attendant
UDS	University for Development Studies
UNICEF	United Nations Children’s Fund
USG	United States Government
USAID	United States Agency for International Development
VSLA	Village Savings and Loans Association
WFP	World Food Program
W4H	WASH for Health (USAID)
WASH	Water, Sanitation and Hygiene
WSMT	Water and Sanitation Management Team
ZOI	Zone of Influence

DEFINITION OF KEY TERMS

The following definitions are used for health, nutrition and WASH terms in the executive summary and body of this report. Some terms are specifically defined for the evaluation questions.

TARGET POPULATIONS

Young children: Children under 5 years old.

Vulnerable women: Women in intervention-targeted rural communities.

NUTRITIONAL MEASURES AND PRACTICES

Improved nutritional status is measured for children under age 5 through three indicators: underweight, stunting and wasting.

Underweight: Weight for age < -2 standard deviations (SDs) of the WHO Child Growth Standards median; usually reflecting a combination of chronic and acute malnutrition.

Stunting: Height for age < -2 SD of the WHO Child Growth Standards median, usually resulting from inadequate growth of the fetus or child. It is a marker of chronic insufficient protein and energy intake, frequent infection, sustained inappropriate feeding practices and impaired brain development caused by long-term insufficient nutrient intake and frequent infections.

Wasting: Weight for height < -2 SD of the WHO Child Growth Standards median, usually the result of a short term or seasonal acute significant food shortage and/or disease.

Improved nutritional status for women (EQ 1) is measured by examining routine health facility data on anemia, exposure to nutrition education and adoption of improved eating habits.

Effect on health outcomes (EQ 1 and 2) is defined as contributing to improvements in desired health outcomes related to diarrheal diseases.

Introduction of semi-solid foods: Proportion of infants aged 6 to 8 months who receive solid, semi-solid or soft foods and breast milk.

Exclusive breastfeeding: Feeding an infant during the first six months of life on only breast milk (including expressed breast milk). Oral rehydration fluids may be administered to correct dehydration and medicinal syrup. No water is given during this period.

DIETARY MEASURES

Quality food (EQ 2): Diet diversity, described as food prepared from a minimum of four of the diversified food groups.

Three full meals (EQ 2) refers to the household's ability to provide three whole meals a day, namely breakfast, lunch and dinner.

Minimum dietary diversity (MDD) score: Proportion of children aged 6 to 23 months receiving food from four or more of the recommended seven food groups (1. grains, roots and tubers; 2. legumes and nuts; 3. dairy products (milk, yogurt, cheese); 4. flesh foods (meat, fish, poultry and liver/organ meats), 5. eggs; 6. vitamin A-rich fruits and vegetables; and 7. other fruits and vegetables).

Minimum Meal Frequency (MMF) score: Proportion of breastfed and non-breastfed children aged 6 to 23.9 months who receive feedings with solid, semi-solid or soft foods or milk the minimum number of times or more. Measure of both the minimum feeding frequency and minimum dietary diversity, as appropriate for various age groups.

Minimum is defined as:

- Two times for breastfed infants 6–8 months
- Three times for breastfed children 9–23 months
- Four times for non-breastfed children 6–23 months
- “Meals” include meals and snacks (other than trivial amounts), and frequency is based on caregiver report

Minimum Acceptable Diet (MAD): Measure of both the minimum feeding frequency and minimum dietary diversity, as appropriate for various age groups

Resilience of household food consumption (EQ2): The ability of a household to respond to shock and provide three full meals a day.

HYGIENE AND NUTRITION INTERVENTIONS:

Hygiene education: Outreach and training to promote behavioral change in relation to cooking practices, sanitation and cleaning, and other hygiene-related interventions

Nutritional education: Outreach and training to improve nutrition practices, including diet diversity, healthy food consumption and preparations (e.g., infant and young child feeding).

Mother-to-mother support groups (MTMSG): A group of women, especially within reproductive age, who come together to learn about and share their experiences on infant and young child feeding practice. These women also support each other as they care for children from birth to age 5 years.

WASH INTERVENTION TERMS

Household assets: Elements from WASH interventions, e.g., latrines, potable water, handwashing stations with soap, etc.

Community-led total sanitation (CLTS) is a methodology for mobilizing communities to completely eliminate open defecation (OD). Communities are facilitated to conduct their own appraisal and analysis of open defecation (OD) and take their own action to become open defecation free (ODF).

LIVELIHOODS INTERVENTIONS

Farmer Field Schools (FFS) comprise groups of farmers who meet regularly during the course of the growing seasons to experiment as a group with new production options. FFS aims to increase the capacity of groups of farmers to test new technologies in their own fields and assess results and their relevance to their particular circumstances.

Village savings and loan association (VSLA): Group collectively supporting a structured process for saving money and offering loans at a local-level. It is a community-based initiative whereby the members of the group democratically elect leaders and prepare their own constitution for how the VSLA will be managed and the rules for members to abide by. Group activities run in one-year cycles, after which the accumulated savings and the loan profits are distributed back to members.

EXECUTIVE SUMMARY

INTRODUCTION AND BACKGROUND

Beginning in 2013, USAID/Ghana funded a series of projects in the Northern Region to help address the challenges of poverty, poor infrastructure, persistent malnutrition rates and health care. The theory of change for these projects was that by diversifying incomes, improving or expanding livelihoods options, providing nutrition education, ensuring access to health care and improving sanitation in communities, households would be more resilient to economic shocks and have improved sustainable health outcomes, particularly among vulnerable women and children under 5. This evaluation examines the effects of four projects:

Resiliency in Northern Ghana (**RING**, 2014-2019) seeks to address extreme poverty and poor nutrition through government-to-government (G2G) agreements with 17 Northern Region districts. RING provides technical assistance to support interventions that include infant and young child feeding (IYCF), nutrition education, mother-to-mother support groups (MTMSGs), village savings and loan associations (VSLAs), orange-fleshed sweet potatoes (OFSPs) and soybean cultivation, small ruminants, community-led total sanitation (CLTS), water access/sanitation facilities and district staff capacity building.

Strengthening Partnerships, Results, and Innovations in Nutrition Globally (**SPRING**, 2013-2017) sought to scale up high-impact nutrition practices and prevent stunting and anemia through a “1,000-Day Household” approach targeting households with children aged 2 years or younger and pregnant women. Interventions in 15 Northern Region districts included IYCF, anemia prevention, MTMSGs, Farmer Field Schools (FFS) and CLTS.

WASH for Health (**W4H**, 2015-2020) focuses on accelerating sustainable improvement in water and sanitation access and hygiene behaviors in seven Northern Region districts through improved sector governance, private sector engagement, CLTS, improved water access and sanitation facilities and coordination with other programs to improve water supply and sanitation in schools and health facilities.

USAID also launched a partnership with United Nations Children’s Fund (UNICEF) to scale up the government program Livelihood Empowerment against Poverty (**LEAP**, 2014-current), which provides social cash transfers to vulnerable households in 28 Northern Region districts.

EVALUATION PURPOSE AND QUESTIONS

The purpose of this evaluation is to inform future USAID/Ghana programming decisions based on an assessment of the performance of interventions to improve nutrition behaviors and increase household resilience in northern Ghana carried out by RING, SPRING, LEAP and W4H. This evaluation seeks to answer three evaluation questions (EQs; see Definition of Key Terms for explanation of nutrition, hygiene, livelihoods and WASH measures).

1. Does increasing household assets (including latrines, potable water, handwashing with soap, etc.) and access to quality foods and nutrition and hygiene education (via RING, W4H, LEAP, and SPRING) result in the *improved nutritional status* of women and young children in northern Ghana?
 - a. What specific effect does access to latrines, potable water sources, handwashing with soap and hygiene education have on health outcomes of women and young children in northern Ghana?
 - b. What effect does access to quality foods and nutrition education have on health outcomes of vulnerable women and young children in northern Ghana?
2. What effect has community-level nutrition activities (via RING, LEAP and SPRING) had on improving the *resilience* of household food consumption?

- a. Will any interventions *sustain* after USAID financial support ceases?
3. What are the contributions of *district-led planning and implementation* in achieving outcomes of interest?
 - a. What lessons can be learned about empowering and engaging local government in future efforts?

DESIGN, EVALUATION TEAM, DATA ANALYSIS METHODS AND LIMITATIONS

At the request of USAID/Ghana, the USAID Evaluate for Health Project (Evaluate) carried out this study using a before-and-after design approach, collecting both primary and secondary quantitative and qualitative data to answer the three EQs. [REDACTED] served as principal investigator supported by the project's evaluation specialists in Ghana and at the Management Systems International (MSI) home office, as well as a nutrition specialist in Tamale (see Annex C). The evaluation team designed the study in consultation with USAID/Ghana's Health, Population and Nutrition Office (HPNO) and the evaluation steering committee, whose members are key stakeholders who provided feedback throughout the evaluation. For EQs 1 and 2, an enumerator team conducted 52 key informant interviews (KIIs) and 26 focus group discussions (FGDs) and administered a household survey to 858 households across 10 districts¹ in the Northern Region, including anthropometric measurements of 724 children under 5. The team based the quantitative survey design, survey tool and sample population on a 2015 SPRING/RING baseline with households selected randomly in the enumeration areas (see Annex D). For EQ3, the team conducted 42 KIIs and 10 FGDs across five districts.² The team conducted the quantitative survey during the same months as the baseline (March and April) and collected data for EQ3 in August 2018.

DATA ANALYSIS METHODS

The evaluation team carried out a statistical analysis of quantitative datasets to examine the results of multiple interventions. The team calculated frequencies and cross-tabulations on relevant characteristics and conducted bivariate analyses to examine associations between nutrition status and socio-demographic factors. The study used the Statistical Package for Social Sciences (SPSS) for Windows, version 21, to perform all statistical analysis, accepting a p-value of less than 0.05 as statistically significant. An ordinal regression analysis was also conducted using Stata V 14. The team analyzed all survey data collected for this evaluation against the 2015 SPRING/RING baseline, providing comparison across a three-year period.

The evaluation team recorded all qualitative interviews, subsequently transcribed to English, and imported them into QSR NVivo 12 for analysis based on a code structure of themes emerging from the review of the transcripts.

In collaboration with NRCC, the evaluation team convened a Dissemination and Recommendations Workshop that included all key stakeholders (NRCC and district representatives). The purpose of this workshop was to present the study's findings and conclusions and seek feedback from stakeholders on practical and actionable recommendations to improve nutrition and poverty reduction outcomes in the Northern Region. The evaluation team incorporated stakeholder feedback and suggested recommendations into the final version of this report.

LIMITATIONS

Potential limitations of the evaluation design and implementation, as well as the mitigation measures adopted by the team, include:

1. **Lack of counterfactual:** The evaluation was not designed to include a counterfactual; this limits the attribution of intervention outcomes to only USAID, since the influence from non-USAID contributions cannot

¹ Sawla-Tuna-Kalba, West Gonja, Central Gonja, Mion, Yendi, Tatale, Zabzugu, Savelugu-Nanton, Karaga and East Mamprusi.

² West Gonja, Central Gonja, Savelugu-Nanton, Karaga and East Mamprusi.

be controlled. To mitigate this, the evaluation team triangulated findings by comparing them to results from other studies and qualitative data.

2. Data comparison issues: The evaluation used a baseline from an already administered survey, which limited the ability to add new data points or make major changes to the instrument. As such, certain measures had to rely on external data.

3. Recall and social desirability bias: Since some interventions date back to 2013, recall is a potential issue, as is respondents' desire to give answers that they assume are correct. These limitations were mitigated through the triangulation of findings.

FINDINGS AND CONCLUSIONS

EVALUATION QUESTION I

I. Does increasing household assets (including, latrines, potable water, handwashing with soap, etc.) and access to quality foods and nutrition and hygiene education (via RING, W4H, LEAP and SPRING) result in the improved nutritional status of women and young children in northern Ghana?

EQI explores how selected interventions funded by USAID/Ghana contribute to the nutritional status of children under 5 and women in northern Ghana. The interventions of interest are water, sanitation and hygiene (WASH), nutrition and hygiene education, and agricultural and home gardening training and support. Stunting, wasting and underweight are the nutritional outcomes of interest for the 724 children under 5 sampled. Severe anemia among pregnant women is a proxy nutritional outcome of interest for women, measured using Ghana Health Service (GHS) facility data.

STUNTING – HEIGHT FOR AGE ($Z < -2$). The surveyed area showed a nominal reduction in stunting at endline compared with baseline, from 32.3 percent to 31.4 percent, although the reduction was not statistically significant among the children sampled. Statistically significant findings included association of sex and open-defecation households with stunting: Females were about 52 percent less likely to be stunted compared to males, and children living in households practicing open defecation were 59 percent more likely to be stunted compared to those from households that did not practice open defecation.

WASTING – WEIGHT FOR HEIGHT ($Z < -2$). No statistically significant difference emerged in the level of wasting between baseline and endline. However, a statistically significant association between wasting and age was observed across children aged younger than 6 months to 59 months. Unlike the case of stunting, the sex of a child was not associated with wasting. Children living in households practicing open defecation were 37 percent more likely to be wasted compared to those from households not practicing open defecation. Almost 15 percent of the 724 sampled children at endline were wasted, a slight increase from the baseline (13.6 percent).

UNDERWEIGHT – WEIGHT FOR AGE ($Z < -2$). Underweight increased from 21.4 percent at baseline to 25.2 percent at endline, with the percentage of boys at 29.5 and girls at 18, although these differences were not statistically significant. Statistically significant associations with wasting included age and sex of children and household open-defecation and handwashing practices. Females were about 91 percent more likely to be underweight compared to males in households with open defecation and poor handwashing practices. Children living in households practicing open defecation were 56 percent more likely to be underweight compared to those from households not practicing open defecation. Children living in households with handwashing facilities were 42 percent less likely to be underweight compared to those living in households without such facilities.

ANEMIA. The evaluation used GHS data on severe anemia among pregnant women as a proxy to assess the nutritional and health status of women in the project area. These data indicated that 13 of 26 districts in the Northern Region had reductions in the percentage of pregnant women with Hb 7gm/dl or less at 36 weeks in FY 2018 compared with FY 2017. Eleven of these 13 districts were SPRING/RING-supported districts. Note: The evaluation did not utilize anemia among children under 5 because sufficient baseline data were not available.

EVALUATION QUESTION 1A

1a. What specific effect does access to latrines, potable water sources, handwashing with soap and hygiene education have on health outcomes of women and young children in northern Ghana?

The study found that the percentage of households using improved water sources increased from 64.9 percent to 71.9 percent from baseline to endline. Availability of handwashing facilities near latrines increased significantly from baseline to endline within households in the intervention areas, from 0.8 percent to 10.6 percent. Open-defecation prevalence decreased from 80.3 percent at baseline to 59.6 percent at endline, while access to improved toilet facilities increased from 14.2 percent at baseline to 23 percent at endline.

In terms of the effect of latrines, potable water and handwashing on health outcomes, FGD participants noted that access to boreholes enabled them to drink clean water, which lowered the number of people becoming sick and experiencing skin infections. FGDs also revealed that families practicing good sanitation have experienced a reduction in incidences of diarrhea, malaria and dysentery. The evaluation used percentage of outpatient department (OPD) cases diagnosed as diarrhea diseases as a proxy to measure the effect of WASH interventions on health outcomes in the project area. Children younger than 5 years showed a steady decline in the percentage of OPD cases diagnosed as diarrhea in sampled communities sampled receiving interventions, compared with the entire region. Routine data showed a -15.2 percent change over baseline in incidence of diarrhea overall at health facilities in the intervention enumeration areas.

EVALUATION QUESTION 1B

1b. What effect does access to quality foods and nutrition have on health outcomes of vulnerable women and young children in northern Ghana?

The study found five improvements in nutrition practices (see [Definition of Key Terms](#)). First, age-appropriate breastfeeding increased from 72.2 percent at baseline to 82.7 percent at endline. Second, the proportion of children aged 6 to 8 months who were introduced to semi-solid foods increased from 29.6 percent at baseline to 50 percent at endline. Third, the endline showed remarkable increases in the minimum dietary diversity (MDD) score: the proportion of children aged 6 to 23 months receiving food from four or more of the recommended seven food groups increased from 5.8 to 34.5 percent. Fourth, minimum meal frequency (MMF)—the proportion of breastfed and non-breastfed children aged 6 to 23.9 months who receive feedings with solid, semi-solid or soft foods or milk the minimum number of times or more—also improved, from 48.6 percent to 58.1 percent. Finally, the percentage of children aged 6 to 23 months who received a minimum acceptable diet (MAD) apart from breast milk increased from 3.6 percent to 30.1 percent.

EQ1 CONCLUSIONS

- The small changes (approximately 1.3 percent)³ observed from baseline to endline in terms of stunting, wasting and underweight among children younger than 5 were not significantly significant, but the evaluation team saw significant associations in terms of the impact of open-defecation-free (ODF) practices and handwashing on stunting, wasting and underweight for children under 5.
- Project interventions likely contributed to changes in the minimum dietary diversity, minimum meal frequency and minimum acceptable diet scores and complementary feeding practices within the target population. However, over the three-year period under study, these changes have not yet affected under-5 nutritional status indicators.
- Increased access to improved water sources and toilet and handwashing facilities and a decrease in open defecation have improved communities' sanitation and perception of improved health.

EVALUATION QUESTION 2

2. What effect have community-level nutrition activities (via RING, LEAP and SPRING) had on improving the resilience of household food consumption?

EQ2 examines whether community-level nutrition activities (IYCF, VSLAs and OFSP) have contributed to improving the resilience of household food consumption, a key measure of nutritional resilience that includes increasing the quantity and improving the diversity of food. The evaluation assessed the effect of community-level nutrition activities on the resilience of household food consumption using three variables: 1) “outcome variable,” food consumption, defined as the ability to provide three full meals a day throughout the year; 2) “shock variable,” length of the lean season; and 3) “exposure variable,” interventions by implementing partners (IPs). The evaluation team also looked at key challenges associated with food consumption, particularly in the lean season.

OUTCOME VARIABLE – FOOD CONSUMPTION

The number of households reporting an inability to provide three full meals throughout the year nearly doubled, from 10.7 percent at baseline to 20 percent at endline. The survey defined “three full meals” as the ability to provide breakfast, lunch and dinner. All districts except Yendi and Mion had notable increases from baseline in the percentage of households that were *unable* to provide meals throughout the year. The evaluation observed the same 10 percent difference in a related question: at baseline, 92 percent of households reported being able to fully feed all members of the household, while at endline, the percentage dropped to 83. This could be due to issues of food security (e.g., loss of crops, drought) mentioned by participants in FGDs.

SHOCK VARIABLE – SEASON LENGTH

As noted, many interview respondents reported various crop and weather challenges, with some also reporting longer lean seasons. However, an equal number of respondents thought the lean season was longer or shorter (40 percent), while the remaining 20 percent thought it was the same. The variation in answers could be based on geographic differences. It is noteworthy, however, that among the subset of 125 respondents who answered that

³ Certain environmental factors, including seasonal food shortages (see body of report for details), may have contributed to continued high rates of severe wasting and severe underweight.

the lean season was longer, all reported that they could not fully feed their family.⁴ This suggests a relationship between the length of the lean season and food consumption.

EXPOSURE VARIABLE – INTERVENTIONS

Community FGD and KII respondents reported that the main interventions that contributed to helping households during the lean season were VSLAs and LEAP. Other interventions mentioned included small ruminants that could be sold during the lean season; IYCF, which increased households' knowledge about nutrition in the lean season; and agriculture interventions, particularly soybeans and green leafy vegetables, which provided food during the lean season.

Respondents reported that VSLAs helped households face challenges, especially in the lean season, by providing access to soft loans to buy food or pay school fees, or to invest in additional income-generating activities. Most FGDs noted that VSLAs are especially beneficial to women, enabling them to save money, address food consumption challenges or initiate other livelihood activities that help them respond to shocks. Most of the community-level FGD respondents who had either participated in LEAP or knew families who did reported benefits from the LEAP grants during the lean season that provided financial support not otherwise available.

CHALLENGES ACHIEVING THE RESILIENCE IN FOOD CONSUMPTION OUTCOME

Most KII and FGD respondents agreed that lack of income is the main reason for insufficient food and diversity in foods and noted that most households rely on agricultural production for income. However, income levels are greatly impacted by uncontrollable external factors (e.g., weather). They noted that poor agriculture seasons lead to lower incomes and less food and shared that, although they were taught about nutritional eating habits, they could not always afford to buy healthy foods or that other food was available only seasonally.

EVALUATION QUESTION 2A

2a. Will any interventions sustain after USAID financial support ceases?

Based on KII and FGD interviews, four interventions appear likely to sustain into the future: VSLAs, which satisfy a strongly felt need for supplemental sources of funding; OFSP cultivation, which is now supported by community- and district-level vine production and acceptance of OFSPs as part of household diets; WASH interventions, including CLTS, although sustaining this will require monitoring and reconstruction of latrines or handwashing stations over time; and less-expensive nutrition interventions within the GHS mandate, such as anemia prevention and control, community management of acute malnutrition (CMAM), community IYCF, essential nutrition actions (ENA) and nutrition-related training, cooking demonstrations, MTMSGs, supportive supervision (SS) and coaching for nutrition.

EQ2 CONCLUSIONS

- Despite uptake of community-level nutrition interventions such as IYCF, VSLA and OFSP, decreased yields and resultant lower incomes made households less food-secure at endline than they were at baseline. FGDs and LEAP data confirm that income is the main barrier to households' ability to resist or respond to shocks.
- Lack of savings or consistent income sources weakens household resilience and ability to access quality food. VSLAs provide an effective and community-friendly mechanism for savings that can then be tapped during the

⁴ The fact that all 125 respondents who reported a longer lean season also reported food insecurity prevented use of the shock variable in a resilience model calculation. Because there was no variation in the outcome variable, the team could not do any analysis of a resilience model to look at a treatment variable mediated by a shock variable.

lean season. VSLAs are also effective avenues to implement livelihood programs (e.g., OFSP), since groups are already working together.

- The most sustainable interventions after USAID financial support ceases are those that correspond to community-felt needs (VSLA, OFSP, CLTS) or can be assumed by GHS under its current programs and budget (e.g., CMAM, IYCF, ENA, MTMSG and SS). However, district and community efforts are required to sustain WASH achievements due to the risk of community disengagement and materials failure.

EVALUATION QUESTIONS 3 AND 3A

3. What are the contributions of district-led planning and implementation in achieving outcomes of interest?

3a. What lessons can be learned about empowering and engaging local government in future similar efforts?

Under the G2G component, USAID provides grants directly to districts to fund development priorities set by local governments. RING provides technical assistance to improve local government financial management, strategic planning, activity implementation and monitoring and supportive supervision of interventions for the governance, nutrition, livelihood, agriculture and WASH interventions for vulnerable populations. KIIs identified the following five key contributions of the district-led planning and implementation approach:

- Coordination of planning across the district technical departments to implement a multi-sectoral approach to tackle the nutrition outcomes of interest.
- Increased public financial management and accountability,
- Strengthening local government structures at the subdistrict level (town/area/zonal councils). Districts supported councils to work to integrate their community action plans (CAPs) into the assembly's plan, including agricultural, nutrition and WASH interventions.
- District support for activity implementation, notably as concerns nutrition education and nutrition-related interventions (cultivation of OFSP and soybeans, etc.).
- Creation of a monitoring and evaluation system to track progress toward outcomes of interest and provide SS and coaching to strengthen community-level interventions. District officers believe they have been able to effectively implement RING interventions because of the culture of monitoring and SS instilled by RING.

Lessons learned about empowering local governments, as derived from FGDs and KIIs, include:

- Need for timely receipt of G2G funds: delays in receipt of G2G funds or release of funds by assemblies affected implementation of certain activities, especially those that were seasonally sensitive.
- Detrimental effect on intervention implementation of high district staff attrition, including time lost in training new staff and in rebuilding relationships with communities.
- Value added of engaging a joint ongoing learning and adaptation process to enable G2G projects to course correct as implementation proceeds, rather than relying primarily on interim and final evaluations.
- Need for clearly defined G2G roles and responsibilities in terms of the inputs and results from IP technical assistance, as compared to the intervention implementation and nutrition indicators for government.
- Improved buy-in occurs when community health interventions are carried out and monitored by subdistrict, health center and CHPS staff, versus centralizing these functions at the District Health Management Team level.

EQ3 CONCLUSIONS

- RING strengthened district planning and implementation, which contributed to the improved implementation of the agricultural, WASH and nutrition interventions.
- Coordination among district technical offices facilitated district implementation of a multi-sectoral approach to nutrition and poverty alleviation, but five years is too short to expect significant results in terms of challenging nutrition outcomes of interest.
- Process improvements and adoption of a culture of monitoring and SS strengthened district monitoring and planning, but additional SS is needed to strengthen monitoring at the community level.
- Lack of timely receipt of direct funds from USAID and assembly delays in releasing funds affected activity implementation, especially interventions that cannot be implemented in the rainy season.

RECOMMENDATIONS

OVERALL PROGRAMMING RECOMMENDATIONS

1. Programming aimed at addressing poverty and improving the nutrition of households should provide (or leverage existing systems like LEAP) monetary support to the most vulnerable households, in addition to interventions. With income being the most significant barrier to investment in agricultural pursuits and obtaining quality food, monetary support (e.g., for school fees or food) would provide households with critical resources to improve their nutrition, especially during the lean season, while they work to build skills to become economically independent.
2. Poverty alleviation programming should reflect on best practices in terms of adjusting for the effects of climate change (e.g., rain patterns) given the significant impact of extreme weather on farmers' income. With farming being the main occupation in the Northern Region, without considering these overarching issues and their effect on crops, interventions will be less effective and unsustainable. Other environmental issues should also be considered, including, when relevant, deforestation and bush burning.
3. USAID nutrition and poverty programs should include a detailed M&E plan that ensures effective monitoring from project inception and intervention-specific impact evaluations to measure contributions and effects of interventions and to contribute to learning and adaptive management. Impact evaluation design should be completed before intervention implementation.
4. Annual intervention-specific rapid assessments should be organized to provide improved understanding of intervention contributions to outcomes. Feedback from these rapid assessments should serve as the basis for annual "pause and reflect" reviews to allow for learning and adaptations in implementation based on experience and data. These reviews should include representatives from the implementing partners, USAID, NRCC, GHS, and the districts.
5. Nutrition and poverty reduction programming should be integrated and implemented in a coordinated manner in targeted communities to create sustainable change: communities require support in all three major programming areas (WASH, nutrition education and livelihoods) rather than receiving only one intervention.
6. Nutrition programming at the community level should use an integrated approach based on lessons learned from successful activities such as:
 - Food demonstration sessions using locally available and seasonally available foods.

- Improved adolescent health services at all levels as a way of strengthening the nutritional status of women of reproductive age and their children under 5 years.
 - IYCF counseling as a strategy to improve upon the nutrition status of children under two years.
 - Integration of men and key community leaders as advocates for improved nutrition behaviors and expansion of FTFSGs to increase male involvement in nutrition issues.
 - Strengthening the capacity of health staffs, CHVs and key community stakeholders to initiate and sustain community-driven food accessibility interventions.
7. To increase sustainability of WASH interventions, programming should scale-up CLTS in all communities and focus on creating and strengthening CLTS networks within communities, with members drawn from traditional and religious leaders, community and natural leaders, health workers, area mechanics, CHCs and WSMTs. Members of these networks should be trained. Area mechanics should be linked to specific communities.
 8. MMDAs should gazette, monitor and enforce sanitation by-laws to accelerate the gains made in community sanitation.
 9. WASH programming should help create mechanisms to increase community access to funds for household sanitation, such as sanitation revolving or social funds to support households in acquiring and maintaining sanitation facilities (e.g., latrines) and linkages between households and private suppliers to facilitate barter of farm produce for building materials or other supplies.
 10. ODF communities should be recognized on the regional and district level for their achievements.
 11. Livelihood programming should focus on intensifying dry season farming, post-harvest management of food, and means of diversifying income or adding value to existing production. Programs should explore creative means to involve the private sector in supporting sustainable livelihood activities, through supply contracts, barter or VSLA support for required livelihoods-related procurements.

USAID PROGRAMMING RECOMMENDATIONS (G2G)

12. Programming targeting sustainable improvements in nutrition and poverty alleviation in highly vulnerable populations should be structured for a 10-year window. Five years is too short to see progress toward the goal (e.g., considerable reduction in stunting) and to see a substantial, sustainable change in district capacity and systems. The time required for startup (e.g., creating relationships and systems, training, etc.) and closeout (e.g., handover of plans) shortens the actual time of project implementation by up to one and a half to two years. Alternatively, an overlapping period between successive projects could help to ensure a smooth handover without a time gap.
13. G2G programs should clearly define responsibilities for project results between districts and the implementing partner. Each party should be assigned specific results and related targets. Districts should be held accountable for specific time-bound results indicators (e.g., number of ODF communities) which should be included in their contracts with USAID and tied to payments. TA should be responsible for services that support achieving indicator targets. This process will increase local ownership and relieve tensions between TA and districts.
14. G2G programs should continue to use a phased approach such as RING to transition districts to direct funding, with a first phase of technical assistance to build capacity and systems before transitioning to direct funding.

15. G2G projects should include a progress review and funds distribution process that ensures that work plans are funded in a timely fashion, especially for seasonal activities, to avoid impediments to successful implementation of the community interventions.
16. USAID G2G funding agreements should be determined based on a joint consultative process that identifies district-level tasks and realistic levels of funding, rather than planning with a pre-determined amount.
17. Project design should support a flexible approach to allow communities to implement relevant activities identified in their CAPs, as opposed to being limited to pre-determined options.
18. M&E systems for districts should be more simple but robust. Districts should be required to report on indicators to gauge progress towards results. Technical assistance should provide data quality assessments of district data and capacity building to strengthen the M&E unit within the district, as well as capacity building for the RPCU to enhance its ability to monitor and assist districts.

RECOMMENDATIONS FOR THE DISTRICTS AND GHS

19. Due to limited funding, districts and communities should prioritize selection of the more sustainable and lower-cost interventions, such as VSLA, CLTS and crops like OFSP, to ensure continued implementation after the end of donor support.
20. Districts should reactivate Water Sanitation Management Teams (WSMTs), identify, train and align area mechanics and latrine artisans to communities to ensure the maintenance of water and sanitation facilities.
21. Community-level health interventions should be carried out and monitored by sub-district, health center and CHPS staff, as appropriate, instead of centralizing implementation at the DHMT level; this will foster ownership and build sustainable community-level relationships.
22. The GHS Regional Director of Health Services should require that districts prioritize nutrition-specific activities and should take the lead in leveraging resources across donors and stakeholders working to improve nutrition.

INTRODUCTION

Between 1992 and 2013, Ghana achieved an overall reduction in the incidence of poverty from 56.5 percent to 24.2 percent,⁵ but poverty rates in the northern part of the country are still nearly twice that of the south. They will most likely remain high as the income gap between the north, and the south has widened even more in recent years. High poverty levels contribute directly to food insecurity in the north, which in turn drives higher rates of underweight, wasting and stunting in children. Chronic undernutrition in these regions is also related to disease burden, inadequate sanitation facilities, anemia during pregnancy and poor infant-feeding practices.⁶ A series of poverty and nutrition-related studies reviewed by the evaluation team confirmed these basic conclusions (UNICEF, Feed the Future, the UK's Department for International Development [DFID], Africa Research in Sustainable Intensification for the Next Generation and Ghana's National Development Planning Commission; see a summary of conclusions in Annex E).

Beginning in 2013, USAID/Ghana funded a series of projects in the Northern Region to help address the challenges of poverty, poor infrastructure, persistent malnutrition rates and low access to education and health care. The theory of change for these projects was that by diversifying incomes, improving/expanding livelihoods options, providing nutrition education, ensuring access to health care and improving sanitation in communities, households would be more resilient to economic shocks and have improved sustainable health outcomes, particularly among vulnerable women and children under 5.

Resiliency in Northern Ghana (**RING**) is one of USAID/Ghana's flagship projects and seeks to address the dual issues of extreme poverty and poor nutrition through government-to-government (G2G) agreements at the district level. Strengthening Partnerships, Results and Innovations in Nutrition Globally (**SPRING**) seeks to enhance country efforts to scale up high-impact nutrition practices and prevent stunting and anemia through its "1,000 Day Household" approach. WASH for Health (**W4H**) focuses on accelerating sustainable improvement in water and sanitation access and hygiene behaviors through improved sector governance and private sector engagement. USAID has also launched a partnership with the United Nations Children's Fund (UNICEF) to scale up the government's Livelihood Empowerment against Poverty (**LEAP**) program, which provides social cash transfers to vulnerable households with an emphasis on women with young children.

These projects together represent an integrated assistance package valued at more than \$130 million to improve health and reduce poverty in the Northern Region. This evaluation examines the overall results supported by these interventions across the Northern Region to answer the three evaluation questions.

EVALUATION PURPOSE

The purpose of this study is to inform future USAID/Ghana programming decisions, based on an assessment of the performance and effectiveness of USAID and its partners' interventions to date to improve nutrition behaviors and increase household resilience in northern Ghana. This study focuses on specific interventions⁷ from the four major USAID projects in northern Ghana that work to contribute to improving nutrition and reducing poverty, especially among women and children: RING, SPRING, LEAP and W4H. This evaluation seeks to address the following research objectives:

⁵ Cooke, E., Hague, S., & McKay, A. (2016). The Ghana Poverty and Inequality Report. UNICEF. Retrieved from [https://www.unicef.org/ghana/Ghana_Poverty_and_Inequality_Analysis_FINAL_Match_2016\(1\).pdf](https://www.unicef.org/ghana/Ghana_Poverty_and_Inequality_Analysis_FINAL_Match_2016(1).pdf)

⁶ <https://feedthefuture.gov/country/ghana>

⁷ These projects are implementing multiple interventions, some of which are outside the scope of this study. This study examines only interventions that pertain to the evaluation questions.

1. Determine whether increasing access to latrines, portable water, handwashing with soap and hygiene education results in improved nutritional status and health outcomes for vulnerable women and young children in northern Ghana.
2. Determine the effect of USAID supported community-level nutrition interventions on household resilience to economic shock and sustainable health outcomes.
3. Measure the contribution of district-led planning and implementation in achieving better health outcomes.

EVALUATION QUESTIONS

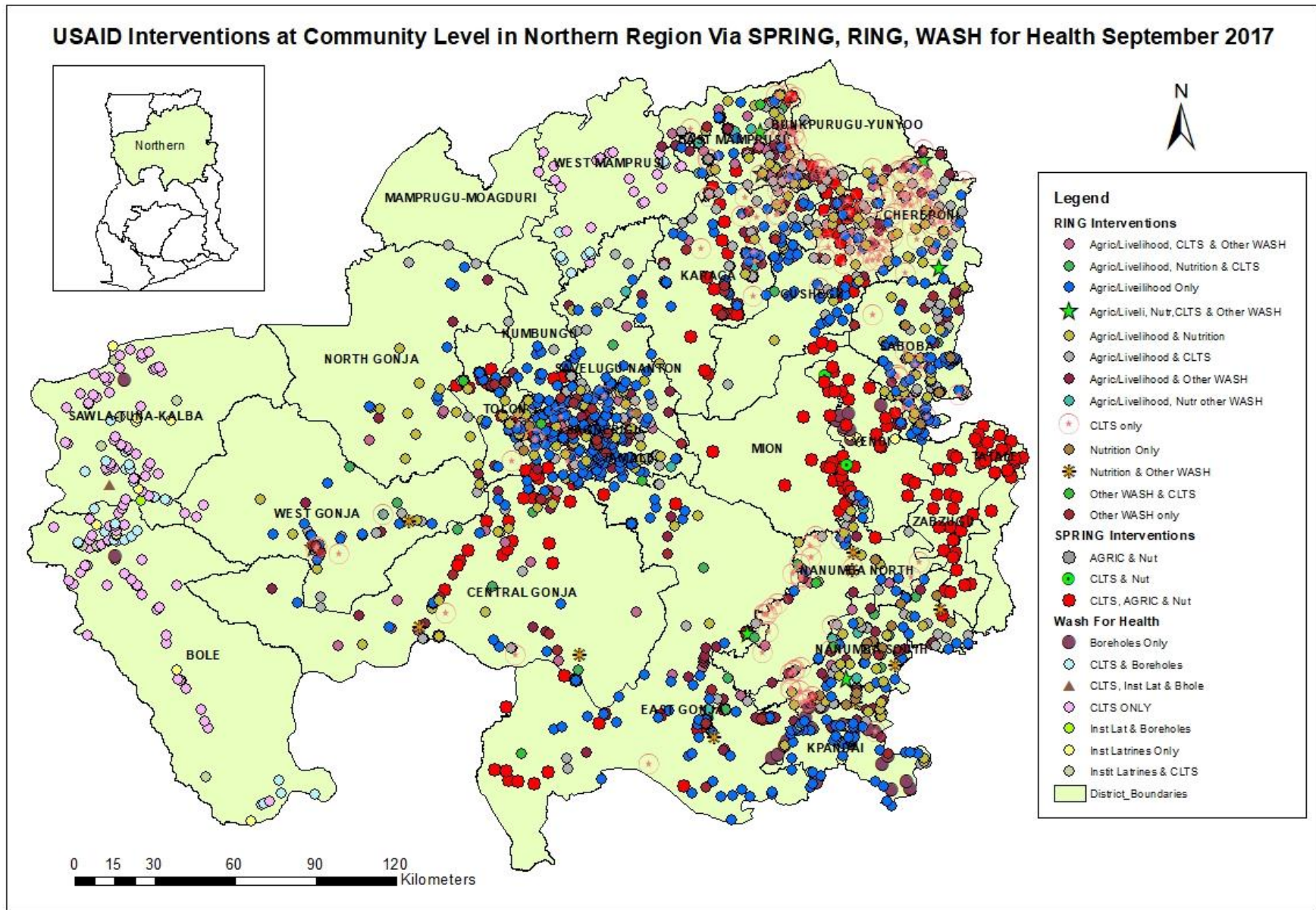
Based on the three objectives, this evaluation seeks to address the following evaluation questions (EQs):

1. Does increasing household assets (including, latrines, potable water, handwashing with soap, etc.) and access to quality foods and nutrition and hygiene education (via RING, W4H, LEAP and SPRING) *result* in the *improved nutritional status* of women and young children in Northern Ghana?
 - a. What specific effect does access to latrines, potable water sources, handwashing with soap and hygiene education have on health outcomes of women and young children in Northern Ghana?
 - b. What effect does access to quality foods and nutrition have on health outcomes of vulnerable women and young children in northern Ghana?
2. What effect has community-level nutrition activities (via RING, LEAP and SPRING) had on improving the *resilience* of household food consumption?
 - a. Will any interventions *sustain* after USAID financial support ceases?
3. What are the contributions of district-led planning and implementation in achieving outcomes of interest?
 - a. What lessons can be learned about empowering and engaging local government in future similar efforts?

To address these EQs, the evaluation team worked with USAID to define key terms and measurements. For EQ1, “improved nutritional status” is measured for young children (under age 5) through three key nutritional indicators: stunting, wasting and underweight. For women, due to limitations in available baseline data, “improved nutritional status” is measured by examining health facility data on anemia and exposure to nutrition education and adopting improved eating habits. Under EQs 1a and 1b, “effect” is defined as contributing to improvements in desired health outcomes related to diarrheal diseases. For EQ2, “resilience of household food consumption” is defined as being able to respond to shock and provide three meals a day (e.g., breakfast, lunch, dinner).⁸ “Sustain” refers to systems that have been established and will continue after project end.

⁸ The evaluation team selected this indicator after consultation with the SC and based on data available in the 2015 RING/SPRING baseline—see discussion under EQ2 Findings.

FIGURE I. MAP OF USAID INTERVENTIONS IN NORTHERN REGION



EVALUATION BACKGROUND

PROJECT OVERVIEWS AND INTERVENTIONS

To better understand the progress achieved in nutrition and poverty reduction in the Northern Region, this study focuses on the four key projects working toward these goals and only examines the interventions that pertain to the evaluation questions (see Figure 1 map and list of interventions in Table 1).

SPRING was implemented by John Snow Inc. from 2013 to 2017. The project aimed to reduce stunting by 20 percent in the two regions most affected by stunting and severe anemia: Northern and Upper East. SPRING's activities addressed anemia reduction; infant and young child nutrition; water, sanitation and hygiene; aflatoxin reduction; and support to LEAP, which provides cash transfers and health insurance. SPRING sought to improve nutrition services at facilities through supportive supervision, training and coaching and used a “1,000 Day Household” approach, which targeted households with children aged 2 years and younger and pregnant women.

RING, implemented by Global Communities from 2014 to 2019, is a partnership effort under USAID's Feed the Future (FTF) initiative. RING aims to contribute to efforts of the Government of Ghana (GoG) to sustainably reduce poverty and improve the livelihoods and nutritional status of vulnerable populations in 17 districts across the Northern Region. The project includes several activities designed to support three complementary project components: increasing the consumption of diverse quality foods, especially among women and children; improving behaviors related to nutrition and hygiene among women and young children; and strengthening local support networks to address the ongoing needs of vulnerable households. It also works closely with district governments to bolster their capacity to carry out needs assessments and develop work plans, budgets and monitoring systems.

W4H, being implemented by Global Communities from 2015 to 2020 in the five USAID focal regions plus the Eastern Region, is designed to improve equitable and sustainable access to safe water and improved sanitation facilities and to strengthen community infrastructure and ownership. Its activities include expanding existing water facilities and repairing damaged boreholes, increasing the number of household or family latrines and promoting improved sanitation behaviors and point-of-use household water treatments.

The **LEAP** program (2014-current) is the Government of Ghana (GoG) landmark social protection program, implemented in partnerships with UNICEF and USAID. It provides cash transfers to the poorest households, comprising orphans and vulnerable children, the disabled, and elderly populations. USAID funded a pilot project that extended cash benefits to 6,000 poor households with pregnant women and children under 12 months with the aim to target the first 1,000 days of life—the period during pregnancy and up to a child's second birthday—to improve consumption of a nutritious diet and reduce stunting. In 2016, based on the success of the pilot, the GoG officially adopted the eligibility criteria, adding another 37,000 “1,000-day” households as beneficiaries to its latest expansion.⁹

⁹ <https://www.usaid.gov/sites/default/files/documents/1864/Ghana-Nutrition-Profile-Mar2018-508.pdf>

TABLE 1: TYPE AND LOCATION OF RELEVANT IP INTERVENTIONS

PROJECT	NUTRITION/ HEALTH	AGRICULTURE/ ECONOMIC GROWTH	WASH	DISTRICT-LEVEL PLANNING	# OF DISTRICTS
SPRING	Infant and young child feeding (IYCF); anemia prevention; mother-to-mother support groups (MTMSGs); social and behavior change	Farmer Field Schools (FFSs)	Community-led total sanitation (CLTS)		15
RING	Community IYCF, nutrition-related training, community-based mass media campaign, cooking demonstrations, MTMSGs, anemia prevention, quality improvement, community-based management of acute malnutrition (CMAM)	Village savings and loan associations (VSLAs), orange-fleshed sweet potatoes (OFSPs) soybean cultivation, small ruminants, shea collection, marketing linkages, leafy green vegetable cultivation and groundnut pilot	CLTS, CLTS field monitoring, borehole, livestock watering area repairs, handwashing stations, water storage and treatment, rainwater harvesting, pipe water extension and latrine repair	Logistics management of nutrition commodities, regional coordination, district facilitation team training, training of trainers (TOT), M&E support, technical assistance	17
W4H			CLTS, improving water access/sanitation facilities		7
LEAP	LEAP is a crosscutting intervention providing a cash grant to impoverished households.		Some educational counselling is provided		28

EVALUATION METHODS & LIMITATIONS

METHODS AND APPROACH

The evaluation team used a before-and-after design approach, involving primary and secondary quantitative and qualitative data collection and analysis to answer the three EQs. The team chose this design after review of available data and consultations with USAID and stakeholders, including regular meetings with a 10-person steering committee that met throughout the duration of the evaluation. Unfortunately, there was no baseline data needed for a quasi-experimental design. However, this evaluation was able to use the data from the 2015 SPRING/RING and 2016 W4H Baseline surveys to serve as the baseline. To strengthen data comparison, this evaluation collected data during the same months (March and April) as the baseline three years earlier.

The approach adopted included examining outcomes at multiple levels (district/municipal, community and household) and review of various types of data to provide a more holistic understanding of nutrition and resilience in northern Ghana.¹⁰ For EQs 1 and 2, the study team conducted 52 key informant interviews (KIIs) and 26 focus group discussions (FGDs). For EQ3, the team conducted 42 KII interviews and 10 FGD (Table 2). Also, the evaluation team administered a household survey to 858 households across 10 districts in the northern region, which included anthropometric measurements of 724 children under age 5. The team used a similar methodology

¹⁰ While this study refers principally to district-level activities and findings, the projects also interacted and built capacity within regional entities, most particularly the Northern Region Coordinating Council (NRCC) and its agencies.

to that of the baseline by selecting households randomly in the enumeration areas, which meant not all respondents of the survey received support from the projects. The survey results are representative of the population at the regional level.

TABLE 2: NUMBER OF QUALITATIVE INTERVIEWS CONDUCTED

RESPONDENT TYPE	EQS 1 & 2	EQ3
KIIs at district level	17	30
KIIs at community level	35	-
FGDs at community /zonal level	26	10
KIIs at the regional level	-	5
KIIs with RING staff	-	6
KIIs with USAID staff	-	1
Total	78	52

The evaluation team ensured a participatory approach by creating a technical steering committee (SC) that included representatives of key stakeholders: USAID Health, Population and Nutrition Office (HPNO), the Regional Planning and Coordination Unit (RPCU) of the Northern Regional Coordinating Council (NRCC), Monitoring, Evaluation and Technical Support Services (METSS), RING, UNICEF, W4H, University for Development Studies (UDS), World Food Program (WFP) and the GHS. The SC met at key stages of the evaluations (e.g., design, data collection, analysis, etc.) to provide input based on members' areas of expertise. This approach enhanced ownership of the evaluation results and enabled the triangulation of data across a range of stakeholders at different levels. The SC also provided overall support to the evaluation team with fieldwork logistics. (See the list of SC members Annex C).

SECONDARY DATA COLLECTION

To adequately address the three evaluation questions, the study team first collected and assessed existing data. This step was essential in understanding what data were available and what additional data should be collected to answer the EQs. Since all the interventions evaluated have been or are being implemented, the secondary data provided historical information which served as the baseline for the evaluation. The type of data collected included but was not limited to population-based survey (PBS) datasets (e.g., Demographic Health Survey [DHS], FTF, project baselines, etc.), project and regional monitoring data and reports (e.g., RING, SPRING, W4H, LEAP), and GHS District Health Information Management System 2 (DHIMS2) data.

To facilitate the collection of existing data, the study team held consultative meetings with each of the USAID/Ghana IPs (RING, SPRING, LEAP and W4H), METSS, and government partners (e.g., GHS and regional and district governments). These meetings helped identify and obtain relevant data, including performance monitoring data as well as special studies and baseline/endline data. Based on these consultations, the evaluation team determined the 2015 SPRING/RING baseline survey to be the most relevant to answer the EQs. This decision was based on geographic scope, survey data points and how long ago and during which part of the season the data were collected.

PRIMARY DATA COLLECTION DESIGN AND IMPLEMENTATION

The evaluation team collected quantitative data at the household level and qualitative data through KII and FGD at the district, community, and individual level. The team collected data for EQ 1 and 2 during the same period (March – April) since both focus on the individual and community levels, as well as the effects due to project interventions. All qualitative interviews were recorded and transcribed into English.

To ensure comparability of results, the evaluation team used the same survey tool from 2015 SPRING/RING baseline with an added component from the W4H survey and dropped any questions that were not relevant to answer the EQs. The evaluation team also went back to the same households used during the baseline. The team conducted enumerator training the week of March 12-16, 2018, which included pilot testing of the survey instrument in the field. Three enumeration teams carried out the survey, each with one supervisor and four enumerators. The teams administered questionnaires from March 19 to April 30, 2018, with a 96.8 percent response rate; 853 households of the targeted 881 participated. The teams also conducted 52 KIIs and 26 FGDs (See data collection instruments Annex H).



Following standard practice, the enumerators used a stadiometer (a light, portable wooden board with a graduated tape measure) to calculate children's height and a SECA 876 U Electronic Scale to record the weight of eligible¹¹ children. All children's ages were assessed/confirmed using child health record books/cards. In a few situations where these documents were not available, other local and historical events were used to estimate the age of the child. The "mother-and-baby function" on the scale helped measure weights of babies and tiny children held in the arms of their mother or helper. The enumerators took two measurements of weight and height for each child; the average was used for endline data. The team converted anthropometric measurements to sex-specific Z-scores using WHO Anthro 3.2.2 Software (WHO, 2011). Following WHO recommendations, the team removed measurements (6.7 percent for baseline and 1.9 percent for endline) determined to be biologically implausible (where the z-score is below -6 or above +6) from the computation (WHO, 1995) for baseline and endline analysis.

For EQ3, the study team relied on desk reviews and qualitative methods. The Evaluate team led a three-day training with four enumerators from August 28 to 30, 2018, in Tamale. Data collection started August 31 and ended September 17, 2018. Enumerators conducted 53 interviews with the district coordinating director, assistant district coordinating director, district planning officer (DPO), district finance officer (DFO) and key stakeholders in Tamale (USAID, RING and NRCC staff). The enumerators also conducted FGDs with assembly members and area/zonal representatives. The team collected data across five districts.

SAMPLING APPROACH FOR QUANTITATIVE DATA COLLECTION

The evaluation team used purposive and systematic sampling methods for the quantitative survey. The evaluation team adopted the systematic sampling utilized by METSS, a two-stage sampling approach using probability

¹¹ Eligible children are all children in the household who are younger than 5 years (0 – 59 months).

proportionate to size (PPS) based on the Ghana Statistical Service enumeration areas (EAs) for the 2015 SPRING/RING baseline survey. The team purposively selected 10 districts in the Northern region¹² based on interventions of interest, with one of the districts being a W4H intervention area. As agreed by the evaluation's steering committee, selection criteria for the sample were based on: 1) number of communities receiving interventions; 2) number of projects (e.g., RING) implementing, 3) safety; and 4) logistics (e.g., budget). The 10 selected districts were: Sawla-Tuna-Kalba, West Gonja, Central Gonja, Mion, Yendi, Tatale, Zabzugu, Savelugu-Nanton, Karaga and East Mamprusi.

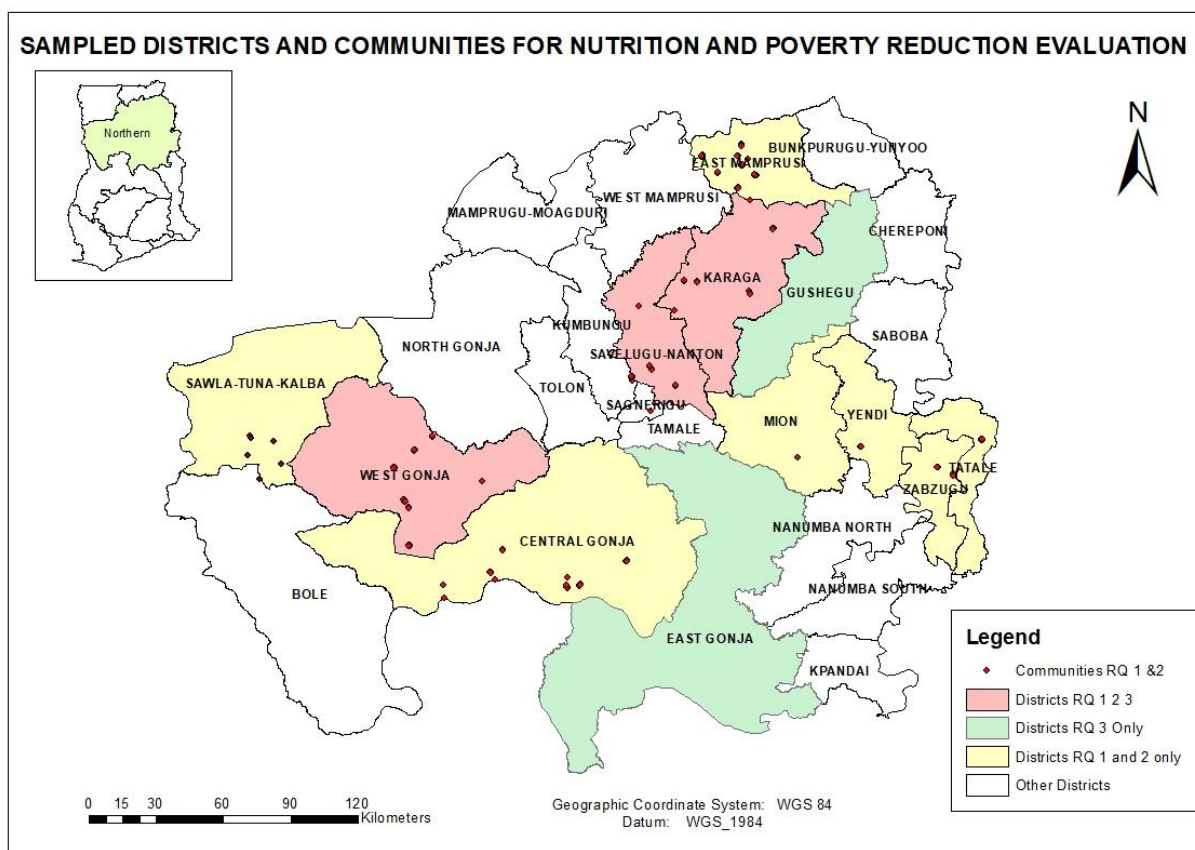
Next, the team purposively selected 46 EAs (out of 169) using similar selection criteria to those described above, i.e. EAs which received the highest number of project interventions and enumerated during the SPRING/RING baseline in March/April 2015 or the W4H baseline in 2015. The second stage involved the selection of 881 households drawn from across the 46 EAs using the 2015 SPRING/RING baseline and 2015 WASH for Health baseline as a sampling frame.

TABLE 3: NUMBER OF HOUSEHOLDS INTERVIEWED IN EACH DISTRICT	
DISTRICT	# HH INTERVIEWED
Gonja Central	123
Karaga	126
Mamprusi East	123
Mion	19
Savelugu Nanton	105
Sawla-Tuna- Kalba	143
Tatale-Sanguli	19
West Gonja	143
Yendi Municipal	19
Zabzugu	38
Total	858

In the SPRING/RING baseline area, the evaluation team targeted all households enumerated in 2015. For the W4H intervention area, the team randomly selected a maximum of 20 households from each EA after compiling a household listing. If a chosen head of a household was unwilling to participate in the study or was not home after three visits, the evaluation team dropped the household without replacement. The household survey had a 97 percent response rate, or 858 from 881 households in the sample. The results are representative of the population at the regional level. (See Annex D for details on sample size)

¹² Activities took place within Northern and Upper East Region for SPRING. However, RING was only in the Northern Region. The selection of the Northern Region was based on a set criterion agreed upon during consultations with the projects, USAID and the SC.

FIGURE 2: MAP OF SAMPLED DISTRICTS BY EVALUATION QUESTION AND SURVEYED COMMUNITIES



SAMPLING APPROACH FOR QUALITATIVE DATA COLLECTION

For EQ3, the team carried out a purposive sampling of five districts: West Gonja, Central Gonja, Savelugu-Nanton, Karaga and East Mamprusi. The key factor in the purposive selection was the year the district was enrolled in G2G. The team selected two districts each from the first two stages (2015 and 2016) and one district from the third stage (2017). The team gave priority to districts that were part of EQs 1 and 2. However, the team avoided districts that were enumerated as part of the RING midterm evaluation. Key informants included regional-level directors of departments or their representatives, district coordinating directors and planning officers, other representatives from ministries, departments and agencies and developmental partners at the district level. The study also included KIIs with staff members of the USAID IP providing technical assistance to the districts, Global Communities and its partner Urban Institute, and USAID HPNO. The study also included 10 FGDs with coordinators at the area council level and assemblymembers.

QUANTITATIVE DATA ANALYSIS

The study team carried out a statistical analysis of quantitative datasets to examine the results of multiple interventions. The team calculated frequencies and cross-tabulations on relevant characteristics and conducted bivariate analyses to examine associations between nutrition status and socio-demographic factors. The study used the Statistical Package for Social Sciences (SPSS) for Windows Version 21 to perform all statistical analysis and accepted a p-value of less than 0.05 as statistically significant. The team further analysis using Stata 14 to test

associations between various variables and nutritional status. The team did not use weights to conduct the calculations. The results are representative of the population at the regional level.

The team also analyzed relevant monitoring data (e.g., outputs, observations, registrations) and secondary studies over time and across questions, indicators and variables, and compared these data to the qualitative findings. The team triangulated available secondary data to complement the primary quantitative and qualitative data.

QUALITATIVE DATA ANALYSIS

The evaluation team verified the KII and FGD transcripts, imported them into the qualitative analysis software QSR NVivo 12, and developed a draft code structure based on themes emerging from the initial review of the transcripts. Once team members verified the code structure, they coded all transcripts, then used content analysis techniques to review the coded data and create sub codes where necessary. The team summarized responses to each theme/code and pulled quotations from respondents to illustrate key findings. This included highlighting “outlier” responses and experiences, such that the range of responses was captured in the summary. The process of identifying subthemes within each code and examining the evidence supporting the themes and subthemes allowed the team to highlight concepts and relationships between themes and subthemes. Annex I provide the team’s codebook for the qualitative analysis.

DISSEMINATION AND RECOMMENDATIONS WORKSHOP

In collaboration with the NRCC, the evaluation team convened a recommendations workshop on May 7, 2019 in Tamale. This workshop presented the evaluation findings and conclusions to key stakeholders¹³ from the region and each district in the evaluation sample, along with representatives from the Steering Committee, USAID, RING, and W4H. Following the presentation, participants broke into four thematic groups (nutrition WASH, livelihood and local governance) to discuss and propose practical, actionable recommendations based on the evaluation findings and conclusions. The evaluation team incorporated stakeholder feedback and proposed recommendations into the final version of the evaluation report.

LIMITATIONS

The potential limitations of the evaluation design and implementation as well as the mitigation measures adopted by the team include:

- **Lack of counterfactual.** This evaluation was not designed to include a counterfactual and directly attribute outcomes. The mixed-methods approach used for this ex-post evaluation attempts to account for confounding factors, but there is no way to fully mitigate this challenge without a counterfactual. This limits the attribution of the evaluation outcomes to only USAID since the influence from non-USAID contributions cannot be controlled for. However, to mitigate this, the evaluation team triangulated findings by comparing them to results from other studies and data and qualitative data from beneficiaries and key stakeholders.
- **Data comparison issues.** This evaluation used a baseline from an already administrated survey, which limited the ability of the evaluation team to add new data points and to ensure the quality of the data. As such, certain measures had to rely on external data. In addition, a change in reporting forms within DHIMS2 for routine data on nutrition limited the GHS data that could be used from GHS for comparison

¹³ District Director of Community Development (DDCD) District Environmental Health Officer (DEHO), District Director of the Department of Agriculture (DOA), District Planning Officer (DPO), District Nutrition Officer (DNO), Deputy District Coordinating Director (DDCD), District Health director, Regional Coordinating Director, District Coordinating Director, and Key District Assembly Members.

over the years. The lack of USAID interventions in some baseline survey communities affected the strength of statistical comparison.

- **Recall bias.** Since some of the interventions date back to 2013, recall bias is a potential issue, as it may lead to exaggerated negative or positive perceptions of past experiences because interviewees tend to remember only key aspects or feelings over time. A well-crafted, pre-tested and relevant KII instrument, appropriate follow-up questions and the use of secondary data helped the evaluation team mitigate some of the challenges of recall bias.
- **Social desirability bias.** Some respondents may give answers that they think the interviewer or facilitator wants to hear. The team sought to ensure that all interview questions were thoroughly tested and that respondents understood that their responses were anonymous.

GENDER CONSIDERATIONS

A key design dimension of the four projects evaluated is the focus on women, recognizing the importance of their role both in the social and economic well-being of a household. To ensure adequate capture of impacts on women, the team explored gender considerations related to data collection (e.g., using female enumerators) and analysis during the team planning meeting, which were integrated into the research plan. The team collected and analyzed gender data to understand the nutrition behaviors and household resiliency in northern Ghana and to assess if project outputs are reaching women. During the initial secondary data assessment, the team reviewed available resources to determine what relevant gender data are available and what gaps exist. This information helped to guide data collection and analysis for this study. The evaluation team examined gender components across all of the evaluation questions and, when necessary, especially in EQI, oversampled women to ensure that they were represented across the questions and findings.

ETHICAL CONSIDERATIONS

The Ghana Health Service Ethical Review Committee provided ethical approval for the study before data collection began. In line with the conditions for ethical approval, the evaluation team ensured that respondents gave informed consent, participation was voluntary, responses are kept confidential and data are stored in a secure and protected cabinet.

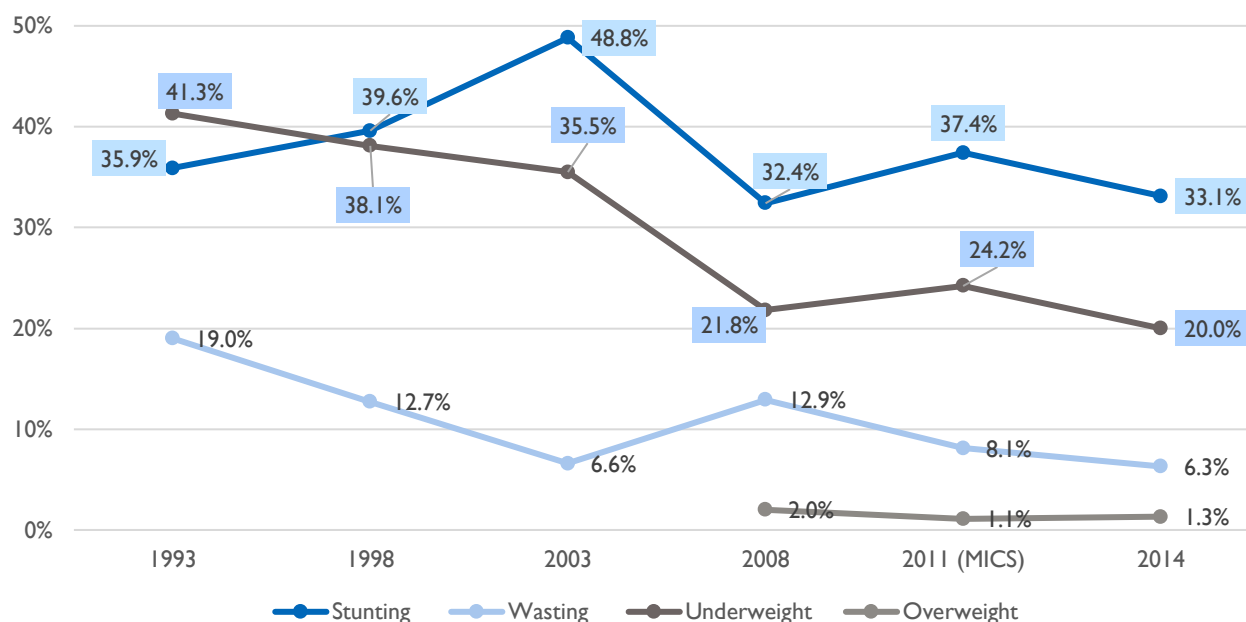
FINDINGS

INTRODUCTION

There have been many studies conducted in Northern Ghana focusing on nutrition and poverty, which provide an understanding of both the current situation and the progress over the years in the north. A Feed the Future (FTF) report (2017) found that though Ghana had successfully lowered the percent of children nationally who were underweight, wasted or stunted, northern Ghana had a significant proportion of these children. A 2014 UNICEF Inequality Report showed that rural regions were four times more impoverished than urban regions, with the northern area having the highest levels of inequality. The study concluded that this disparity is impeding the effects of national poverty reduction efforts by 1.1-2.8 percent. The study concluded that inequality has been a primary reason for why poverty reduction efforts have stalled, particularly in rural areas, and that development in Ghana has benefited urban populations disproportionately more than rural populations.¹⁴

Ghana's National Development Planning Commission's 2016 report on the Cost of Hunger in Africa concluded that the economic cost of malnutrition was GHS 4.6 billion in 2012 (based on health, education, and labor). Also, they estimated a 7.3 percent decrease in the current working population, and 41 percent of manual laborers due to this lower lifetime productivity. Even if stunting and malnourishment were to remain at the same prevalence from 2012 to 2025, the cost to society would rise by 47 percent¹⁵. (For more information see Annex E). Figure 3 shows nutritional trends in the Northern Region between 1993 and 2014, when the last Demographic Health Survey (DHS) was taken.

FIGURE 3: NUTRITIONAL STATUS FOR CHILDREN UNDER 5 IN NORTHERN REGION FROM GDHS AND MICS 1993 – 2014



¹⁴ Ciani, F and Romano D. (2014) Testing for household resilience to food insecurity: evidence from Nicaragua 3rd AIEAA Conference - Alghero, 25-27 June 2014

¹⁵ National Development Planning Commission. (2016). Social and Economic Impact of Child Undernutrition on Ghana's Long-Term Development. The Cost of Hunger in Africa – National Development Planning Commission, Republic of Ghana. Retrieved from <https://s3.amazonaws.com/ndpc-static/CACHES/PUBLICATIONS/2016/07/23/GHANA+COHA+REPORT.pdf>

HOUSEHOLD SURVEY RESPONDENTS

In total, the study surveyed 858 households and conducted 52 KIs and 26 FGDs across 10 districts in the Northern Region for EQs 1 and 2. On average, the surveyed households contained 7.5 people; 63.5 percent of the households had children younger than 5 years with an average of 1.6 children under 5 per household. For the heads of household, 69 percent were Muslim, 14 percent Christian and 8 percent Traditionalists. The main occupation of the heads of household was farming (83 percent), followed by traders (5 percent). A majority of the household respondents were male (88 percent), and their average age was 47 years old. A majority of heads of household were either married (80.6 percent) or in a long-term union (7.2 percent).

Only 15 percent of the heads of household could read and write in a local language, while 14 percent could read and write in English. Also, 74 percent had never been to school. However, of the children (6 to 17 years old) 83 percent had attended school and of them, 94 percent were currently attending school. Of household members between 15 and 40 years old, 39 percent could read or write in English, 21 percent could read and write in a local language or Arabic, and 48 percent never went to school.

EVALUATION QUESTION 1

1. Does increasing household assets (including latrines, potable water and handwashing with soap, etc.) and access to quality foods and nutrition and hygiene education (via RING, W4H, LEAP and SPRING) result in the improved nutritional status of women and young children in northern Ghana?

EQ1 focuses on exploring how interventions contribute to the nutritional status of women and children in northern Ghana. For this EQ, the specific interventions of interest include WASH, nutrition and hygiene education, and agricultural and home gardening training and support. Household assets were defined as elements from WASH interventions, including latrines, potable water, handwashing with soap, etc. Quality food was defined as dietary diversity (e.g., four food groups) and nutrients, nutritional and hygiene education was defined as outreach and training provided by the IPs that targeted a change in the preparation and consumption of food and hygiene behavior (e.g., handwashing, cleanness, etc.).

This section will first discuss the overall changes in nutritional status since the 2015 baseline in the targeted communities, especially looking at the overall nutritional status of children in terms of stunting, wasting and underweight. EQ1A examines how WASH interventions have influenced health outcomes. EQ1B looks at how access to quality food contributes to nutritional health outcomes of women and children. For a breakdown on types of interventions by district and enumeration (community) area, please refer to Annex F.

Since this evaluation design is not quasi-experimental, this evaluation question explores how the key interventions helped change specific behaviors, which contributed to improvements in nutritional status in EAs that benefited from project interventions in Northern Region.

NUTRITIONAL STATUS OF CHILDREN

Nutritional status of children under age 5 is regarded as one of the significant predictors of child survival.¹⁶ The period from birth to age 5 is especially crucial for physical, mental and cognitive growth and health and development of the child. However, this period is also when issues with poor nutrition and repeated infections may interfere with the child's optimal growth.

¹⁶ Chataut J, Khanal K. (2016) Assessment of Nutritional Status of Children under 5 Years of Age in Rural Nepal. Kathmandu University Medical Journal (KUMJ). 14(53):73–7.

To measure the nutritional status of children, this evaluation collected anthropometric data on height and weight from all children under 5 from the surveyed households in EAs that had benefited from interventions on latrines, potable water, nutrition and foods via RING, SPRING and LEAP. Data were collected from 724 children. To understand children's nutritional status, the team looked at the following key indicators that are further discussed below:

- Prevalence of stunted children under 5 years of age (height for age);
- Prevalence of wasting for children under 5 years of age (weight for height); and
- Prevalence of underweight children under 5 years of age (weight for age).

STUNTING – HEIGHT FOR AGE

Stunting, or having low height for age, (height for age < -2 SD of the WHO Child Growth Standards median) results from inadequate growth of the fetus or child. Stunting is an indicator of sub-optimal linear growth that can be associated with insufficient nutrient intake, inappropriate feeding practices, and/or infection. Stunting results in a failure to achieve expected height compared to a healthy, well-nourished child of the same age.¹⁷

There was no statistically significant difference in the level of stunting at endline compared with baseline, although the data show that the situation was marginally better at endline by 2.3 percent. For the Northern Region, the 2014 DHS reported that the prevalence of stunting was 33.1 percent,¹⁸ which is slightly higher than the prevalence in the surveyed areas at the 2015 baseline of 32.8 percent and much higher than the national DHS prevalence of 19 percent. At endline the study found that 31.4 percent of children under 5 were stunted, with severe stunting having the highest difference at -9.4 percent change over baseline. Furthermore, the percentage change of children classified as “not stunted” increased by 1.3 percent over baseline (see Table 4).

TABLE 4: STUNTING LEVELS AT BASELINE AND ENDLINE

STUNTING	BASELINE MARCH/APRIL 2015	ENDLINE MARCH/APRIL 2018	% CHANGE
Severe stunting*	12.7%	11.5%	-9.4%
Moderate stunting**	19.6%	19.9%	1.5%
Not Stunted***	67.7%	68.6%	1.3%
Overall Stunting	32.3%	31.4%	-2.3%

Notes: % change not statistically significant at the .05 Level. * (<-3 z-score), **(-≥3≤2 z-score), ***(>=2 z-scores)

The SPRING endline beneficiary-based study conducted in July 2017 provided a more positive picture for stunting in the SPRING intervention areas. The beneficiary study found 27.5 percent of children under 5 stunted and 9.6 percent severely stunted.¹⁹ The difference, however, could be because the SPRING study looked exclusively at the direct beneficiaries of its project interventions while this evaluation looks at the effect of the intervention at the population level across SPRING, RING and LEAP intervention areas.

Stunting among children under 6 months and children aged 6 to 23 months saw a marginal improvement, although not statistically significant. Severe stunting declined in these two age groups, but severe stunting in children aged

¹⁷ Black R.E., Victora, C.G. Walker, S.P. et al. (2013) Maternal and Child Undernutrition and Overweight in Low-Income and Middle-Income Countries. *Lancet*, 382, pp. 427-451

¹⁸ Ghana Statistical Service (GSS), Ghana Health Service (GHS) and ICF International (2015). Ghana Demographic and Health Survey 2014. Rockville, Maryland, USA: GSS, GHS and ICF International.

¹⁹ Strengthening Partnerships, Results and Innovation In Nutrition Globally, GHANA Endline Beneficiary-Based Survey Report.

24 to 59 months increased, with a 10 percent change over baseline (see Table 5). Generally, stunting levels were low among children under 6 months of age and increased with age until about 30 months. The slight change in stunting among children younger than 6 months could be influenced by project interventions to improve maternal nutrition before and during pregnancy, which leads to improved fetal growth. The improvement in the practice of exclusive breastfeeding could also be a contributing factor.

TABLE 5: STUNTING BY AGE GROUP

INDICATOR	% OF CHILDREN		
	BASELINE MARCH/APRIL 2015	ENDLINE MARCH/APRIL 2018	% CHANGE
Severe stunting* < 6 months	5.93%	2.9%	-51.5%
Moderate stunting** < 6 months	4.5%	5.7%	-27%
Not Stunted*** < 6 months	91.2%	91.4%	2.1%
Severe stunting 6-23 months	16.9%	11.6%	-31.3%
Moderate stunting 6-23 months	14.6%	16.5%	13%
Not Stunted 6-23 months	68.5%	71.9%	5%
Severe stunting 24-59 months	11.9%	13.1%	10.1%
Moderate stunting 24-59 months	24.8%	24.4%	-1.6%
Not Stunted 24-59 months	63.3%	62.5%	-0.01%

Notes: Significance test at the .05 level not statistically significant. * (<-3 z-score), **(-3≤2 z-score), ***(>2 z-scores)

When disaggregated by sex, most gains in stunting reduction occurred among boys. However, boys also have higher overall stunting rates. At the endline, stunting for males was 36.4 percent, compared to females at 30.1 percent. The overall percentage change in stunting among boys was -3.7 percent, while girls remained the same. While severe stunting declined 15.7 percent for boys, girls showed a 32.4 percent increase over the baseline.

TABLE 6: STUNTING BY SURVEY TIME AND SEX

SEX	STUNTING	BASELINE MARCH/APRIL 2015	ENDLINE MARCH/APRIL 2018	% CHANGE
Male	Severe stunting*	17.2%	14.5%	-15.7%
	Moderate stunting**	20.6%	21.9%	6.3%
	Not Stunted***	62.2%	63.5%	3.7%
	Overall stunting	37.8%	36.4%	-3.7%
Female	Severe stunting*	7.1%	9.4%	32.4%
	Moderate stunting**	19.8%	17.0%	-14.1%
	Not Stunted***	69.8%	69.9%	0.1%
	Overall stunting	30.2%	30.1%	-0.003%

Notes: Significance test of percentage change at the 0.05 test level not statistically significant. * (<-3 z-score), **(-3≤2 z-score), ***(>2 z-scores)

Severe stunting, which more often affects the most vulnerable population, had the highest percentage change over baseline (a drop of 9.4 percent; see Table 4). Furthermore, the percentage change of children classified as “not stunted” went up by 1.3 percent over baseline. The effects of interventions on children under 6 months and children aged 6 to 23 months saw improvement, although not statistically significant.

Although there was no statistical difference in stunting between baseline and endline, age of children was found to be associated with stunting in both univariate and adjusted regression models. Variations in stunting were observed across children aged less than 6 months to children aged 59 months. These differences observed in stunting were all found to be statistically significant.

Similarly, sex of the child was also found to be associated with stunting. Females were about 52 percent less likely to be stunted compared to males. Further, children living in households where open defecation is practiced were 59 percent more likely to be stunted compared to those from households who did not practice open defecation (see Annex F).

WASTING – WEIGHT FOR HEIGHT

Wasting, or low weight for height (below -2 standard deviations from median weight for height of WHO Child Growth Standards), is usually the result of a short-term/seasonal acute significant food shortage or disease. There was no statistically significant difference between baseline and endline for wasting. Almost 14.8 percent of the sampled children at endline were wasted, 8.8 percent more than at baseline. The overall change in wasting was due largely to an increase in moderate wasting, which registered a 23.8 percent change (see Table 7). Since wasting is an indicator of current nutritional status and may be due to starvation/hunger or severe disease, the increase in wasting could reflect such conditions around the period of the data collection.

TABLE 7: PERCENTAGE CHANGE IN WASTING BETWEEN BASELINE AND ENDLINE

	BASELINE MARCH/APRIL 2015	ENDLINE MARCH/APRIL 2018	% CHANGE
Severe wasting*	5.2%	4.4%	-15.4%
Moderate wasting**	8.4%	10.4%	23.8%
Not Wasted***	86.4%	85.2%	-1.39%
Overall wasting	13.6%	14.8%	8.8%

Notes: % Change not statistically significant at the 0.05 test level. * (<-3 z-score), ** (≥3≤2 z-score), *** (≥-2 z-scores)

The qualitative interviews provided evidence of some drivers of hunger in some households in March/April 2018 that were not an issue in 2015 and which may explain the increase in wasting among the children. Respondents explained that food consumption in households had been highly affected by chronic poverty and low agricultural production due to poor crop yield, insufficient rains and fall armyworm invasion over the last growing season.

“The truth is that there is a reduction in household food consumption in many households due to low agricultural output. Our crops don’t do well again, and the armyworm has come to make it even worse.” (Community-level FGD, Kpabia)

“Our husbands don’t have the money, [it] is up to you, the woman, to manage to put food on the table. How can you think of varieties when you don’t even have enough to eat?” (Community-level FGD, Tarikpaa)

“With the leafy green vegetables, a lot of sites had to wind up earlier than anticipated because ... there was no water, the water bodies dried up or soon would. That has not only wasted the time of those involved, but they

don't also get enough to feed on, and so definitely, it has some effect on where the project would have wished to reach.” (KII, RING staff)

Wasting disaggregated by sex (see Table 8) shows that boys accounted for the non-significant increase in wasting between the baseline and the endline. Wasting in girls reduced by 5.4 percent over baseline. However, for boys, the situation worsened, with a 16.6 percent change over baseline.

Further analysis of the data disaggregated by age shows that for wasting, children younger than six months fared better at endline (20 percent) than baseline (23.9 percent). However, the prevalence of wasting increased from 20.3 percent at baseline to 25.2 percent at endline among children within the intermediate age range of 6 to 23 months (see Annex F).

In addition, although not statistically significant, wasting in LEAP-supported households at endline was higher (23.7 percent) compared with the rest of the population (12.7 percent), as 3.3 percent more children in LEAP households had issues with severe wasting at endline when compared with the overall wasting rate.²⁰ In addition, there was an association ($P=.005$) between wasting and participating in the LEAP program.

TABLE 8: WASTING X SURVEY TIME X SEX CHILD CROSS-TABULATION

	WASTING	BASELINE MARCH/APRIL 2015	ENDLINE MARCH/APRIL 2018	% CHANGE
Male	Severe wasting*	7.2%	5.1%	-29.2%
	Moderate wasting**	7.2%	12.2%	69.4%
	Not Wasted***	85.6%	82.7%	-3.4%
	Overall wasting	14.4%	16.9%	16.6%
Female	Severe wasting	3.4%	3.6%	5.9%
	Moderate wasting	9.5%	8.6%	-9.5%
	Not Wasted	87.1%	87.8%	0.8%
	Overall wasting	12.9%	12.2%	-5.4%

Notes: % Change not statistically significant at the 0.05 test level. * (<-3 z-score), ** ($-\geq 3 \leq 2$ z-score), *** (≥ -2 z-scores)

Although there was no statistical difference in the level of wasting between baseline and endline, the age of children was found to be associated with wasting for children. In both univariate and adjusted regression models, association between wasting and age was observed across children aged less than 6 months to children aged 59 months. These associations were statistically significant for children within the age groups of 36 to 47 months and 48 to 59 months. The association between children aged 24 to 35 months was very close (0.06) to the margin of statistical significance.

However, unlike the case of stunting, a child's sex was not associated with wasting, but as for stunting, children who were living in households where open defecation was practiced were 37 percent more likely to be wasted compared to those from households who did not practice open defecation. The test for the statistical significance for children living in households with open defecation was close to the margin of statistical significance ($p=0.075$). (See Annex F)

²⁰ This aligns with UNICEF's recent findings that LEAP cash transfers do not impact the diversity or nutritional status of households, but rather act as a resiliency measure where they prevent households from sinking further into poverty when experiencing economic shocks.

UNDERWEIGHT – WEIGHT FOR AGE

Underweight or low weight for age (below -2 standard deviations from median weight for age of WHO Child Growth Standards) usually reflects a combination of chronic and acute malnutrition. Underweight at endline increased 3.8 percentage points to 25.2 percent, representing a 17.7 percent change over baseline (see Table 9).

At endline, underweight for boys was 29.6 percent and 20.9 percent for girls (see Table 10). When compared with baseline, the percentage change over baseline is 13.4 percent and 21.5 percent respectively for boys and girls. These changes are driven by a high percentage change in severe underweight for boys and girls. Severe underweight at endline for boys was 10.0 percent representing a 38.2 percent change over baseline (6.7 percent). Severe underweight for girls at endline was 5 percent representing a 16.3 percent change over baseline (4.3 percent). Moderate underweight showed a 16.8 percent change among boys at endline over baseline, while girls recorded a 23.3 percent change at endline over baseline. Regarding changes in underweight by age between baseline and endline, all age groups recorded an increase. For children younger than 6 months, underweight increased from 8.8 percent to 11.1 percent; for children aged 6 to 23 months, the increase was from 26.2 percent to 28.5 percent; and for children aged 24 to 59 months, the increase was from 22 percent to 23 percent.

TABLE 9: UNDERWEIGHT LEVELS AT BASELINE AND ENDLINE

UNDERWEIGHT	BASELINE MARCH/APRIL 2015	ENDLINE MARCH/APRIL 2018	% CHANGE
Severe underweight*	6.7%	7.5%	38.2%
Moderate underweight*	14.7%	17.7%	20.7%
Not Underweight***	78.6%	74.8%	-2.4%
Overall underweight	21.4%	25.2%	17.7%

Notes: % Change not statistically significant at the 0.05 test level. * (<-3 z-score), **(-≥3≤2 z-score), ***(≥-2 z-scores)

TABLE 10: UNDERWEIGHT LEVELS AT BASELINE AND ENDLINE BY SEX

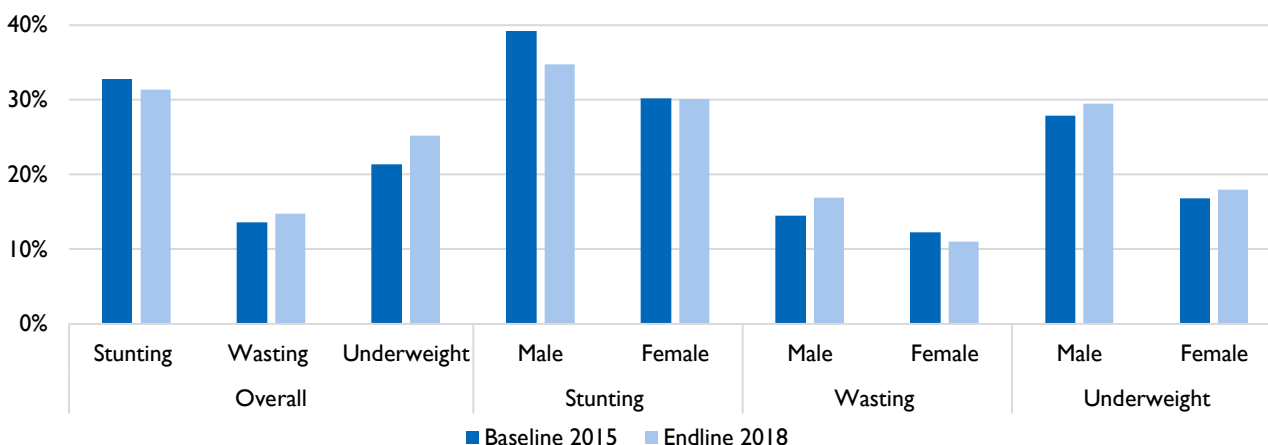
SEX	UNDERWEIGHT	BASELINE MARCH/APRIL 2015	ENDLINE MARCH/APRIL 2018	% CHANGE
Male	Severe underweight*	9.3%	10%	7.5%
	Moderate underweight**	16.8%	19.6%	16.8%
	Not Underweight***	73.9%	70.4%	-4.7%
	Overall underweight	26.1%	29.6%	13.4%
Female	Severe underweight	4.3%	5.0%	16.3%
	Moderate underweight	12.9%	15.9%	23.3%
	Not Underweight	82.7%	79.1%	-4.1%
	Overall underweight	17.2%	20.9%	21.5%

Notes: % change not statistically significant at the .05 level. * (<-3 z-score), **(-≥3≤2 z-score), ***(≥-2 z-scores)

There was no statistical difference in the level of underweight between baseline and endline. Age of children was found to be associated with underweight in both univariate and adjusted regression models. Variations in underweight were observed across children aged less than 6 months to children aged 59 months. The association

between underweight and age of child was statistically significant for all age groups with the exception of children within the age group of 6 to 8 months.

FIGURE 4: NUTRITIONAL INDICATORS BY GENDER



Similarly, sex of the child was found to be associated with underweight. In households with open defecation and poor handwashing practices, girls were 91 percent more likely to be underweight than boys. Children living in households where open defecation is practiced were 56 percent more likely to be underweight compared to those from households who did not practice open defecation. Households with handwashing facilities were 42 percent less likely to be underweight compared with households without handwashing facilities. However, when the regression model was adjusted for other intermediary variables, the association between handwashing facility in the home and underweight was no longer statistically significant. Unlike wasting and stunting, there was also an association between household size and underweight. About 25 percent of households with five or more people had an underweight child, compared to 19.2 percent of households with fewer than five people (see Annex F).

Communities did not all receive the same number of nutrition, sanitation and WASH interventions. To assess whether the number of interventions might influence nutrition outcomes, the study team compared households in communities that received one to two interventions to communities receiving three to six interventions. When looking at outcomes for wasting, stunting and underweight, some differences existed between the two groups, but these were small and not statistically significant. Households in communities with fewer interventions had slightly higher wasting rates (15 percent), compared to communities with more interventions (14 percent). For stunting, there was a slightly larger difference: communities with fewer interventions had stunting rates of 34 percent, compared to 30 percent in communities with more interventions. Underweight had similar results, with 26 percent underweight in communities with fewer interventions, compared to 22 percent in communities with more interventions. (For a breakdown on types of interventions by district and community, please refer to Annex F). Although these findings are not statistically significant, overall communities with more interventions had lower rates of wasting, stunting and underweight when compared to communities with only a few interventions.

Additionally, feedback from qualitative interviews with district planning officers and DEHOs indicated a strong preference for implementing an integrated package of nutrition, livelihoods and WASH interventions to improve nutrition results.

“On the district level, we believe that communities benefit most from an integrated program of interventions that includes nutrition, livelihoods and WASH. It is also useful for the communities to have a direct say in the choice of types of livelihoods interventions.” (KII, DEHO)

NUTRITIONAL STATUS OF WOMEN

This evaluation survey did not collect data on key indicators to measure changes in women's nutritional status due to a lack of available baseline data. After consultation with the Steering Committee, the evaluation utilized GHS DHIMS2 data on severe anemia as a proxy measure of the nutritional and health status of women, specifically the percentage of pregnant women with Hemoglobin (Hb) concentration in the peripheral blood less than 7gm/dl at 36 weeks of pregnancy. FY 2017 DHIMS2 data for the Northern Region reported 2.3 percent of pregnant women at 36 weeks being severely anemic, compared to 2.4 percent in FY 2018 (October 2017 to September 2018).

However, DHIMS2 data indicates that 13 of 26 districts in the Northern Region had reductions in the percentage of pregnant women with Hb 7gm/dl or less at 36 weeks from FY 2017 to 2018. Eleven of the 13 districts were SPRING/RING-supported districts (see Table 11).

TABLE 11: DISTRICTS WITH REDUCTIONS IN SEVERE ANEMIA AT 36 WEEKS

PERCENTAGE OF PREGNANT WOMEN WITH SEVERE ANEMIA AT 36 WEEKS (HEMOGLOBIN LESS THAN 7GM/DL)

DISTRICTS	FY 2017	FY 2018	% CHANGE
Mamprugu-Moagduri	6.1%	0.76%	-88%**
Nanumba South	4.1%	0.73%	-82%**
Tolon	2.5%	0.52%	-79%**
Mion	3.8%	0.92%	-76%**
East Mamprusi	2.9%	1.3%	-55%**
Zabzugu	8.9%	4.3%	-52%
Sawla-Tuna-Kalba	3.6%	2.4%	-33%
Savelugu-Nanton	3.3%	2.3%	-30%**
Sagnarigu	3.7%	2.8%	-24%
East Gonja	2.1%	1.6%	-24%
North Gonja	5.1%	4.4%	-14%
Kpandai	2.3%	2%	-13%
Tamale	1.8%	1.6%	-11%

Source: Ghana Health Service DHIMS 2 data. Districts not highlighted are the RING and SPRING supported ones. ** Statistically significant at the 0.05 test level

Furthermore, routine health data show a change of -3.6 percent in FY 2018 compared to FY 2017 for pregnant women with severe anemia at registration for the nine sampled SPRING, RING and LEAP districts. The percentage of women with severe anemia at 36 weeks reduced by 4.1 percent over the same timeframe. The DHIMS2 data suggest that interventions by USAID could have contributed to improving the nutritional and health status of women within the area.

EVALUATION QUESTION 1A

1a. What specific effect does access to latrines, potable water sources, handwashing with soap and hygiene education have on health outcomes of women and young children in northern Ghana?

Critical interventions in the project areas included provision of improved water sources and sanitation facilities and hygiene education. Improved drinking water sources are defined as sources that, by nature of their construction or through an active intervention, are protected from outside contamination (i.e., fecal matter).²¹ RING reports that cumulatively 167,700 people have gained access to basic drinking water services as a result of the project.²² W4H indicates that for their districts 22,500 people have gained access to basic drinking water through the construction of 75 community boreholes.

Within the SPRING/RING zone, the percentage of respondents confirming access to improved water sources increased by 10.8 percent over baseline (see Table 12). In the FGD, participants mentioned that because of their access to boreholes, they can drink clean water; they reported a reduction in people falling sick. They also mentioned seeing a reduction in skin infections and no cases of guinea worms from the boreholes. The majority (60 percent) of households at endline reported having access to a borehole, pump or tube well, while 21 percent reported using surface water/dugout/pond/canal. About 56.5 percent of households reported having a regular supply of water (all or most of the time,) compared to 50.3 percent at baseline.

TABLE 12: ACCESS TO WATER SOURCES BY TYPE

WATER	BASELINE 2015	ENDLINE 2018	% CHANGE
Unimproved	35.1%	28.1%	-19.94%**
Improved	64.9%	71.9%	10.79%**

Notes: ** Statistically significant at the 0.05 test level

There has been an increase in access, however, a continuing challenge is supply and maintenance of water sources. Certain key informants mentioned getting their water from a dam due to broken boreholes or lack of sufficient water supply, especially in the dry season. At endline, 26 percent of households expressed being very satisfied with their water source compared to the 19.5 percent at baseline, but households reporting that they were dissatisfied increased from 8.6 to 34.5 percent.

In the peak of the dry season (mostly from January to April), it is not uncommon for women and female children from communities that do not have functional boreholes or mechanized water systems to walk long distances in search of water for household use, including for domestic animals. In more extreme situations, it takes hours for a household to collect water that is still inadequate to meet all household needs, particularly to care for livestock, such as small ruminants, poultry and donkeys or horses. However, on average households' water sources are 275 meters (902 feet) from the household structure and on average take 30 minutes round trip to collect. The situation adversely affects not only the health of the household, but also the health, growth and productivity of their animals, who often have restricted movement. FGDs confirm that the establishment of water and sanitation management teams (WSMTs) in the targeted communities has contributed to the provision of a continuous safe, hygienic water supply.

²¹ These sources include: piped water into dwelling, plot, or yard; public, tap/standpipe; tube well/borehole; protected dug well; protected spring; or rainwater collection. All other sources are considered "unimproved," or unprotected sources.

²² This is based on GoG and Community Water and Sanitation Agency guidelines that indicate 300 people per borehole. This generates the 167,700 number; it is not an actual headcount. (n=559).

The availability of handwashing facilities increased significantly within households in the intervention areas of SPRING/RING/LEAP. At the endline, 10.6 percent of households had handwashing facilities near latrines, representing a 1,225 percent change over baseline (0.8 percent). According to the FGD respondents, tippy taps²³ are available and continue to be added in the communities, providing access to proper handwashing facilities with soap and water. RING had constructed 12,657 tippy taps as of September 2018. About 68.3 percent of households reported having tippy taps. About 88.3 percent of households have soap or ash available. When asked about their handwashing behaviors, 90.2 percent of households reported that they wash their hands with soap/ash, an increase from 86.3 percent at baseline.

TABLE 13: WASH PRACTICES HANDWASHING & OPEN DEFECATION

	HANDWASHING FACILITY NEAR TOILET			OPEN DEFECATION BY HOUSEHOLD		
	BASELINE MARCH/ APRIL 2015	ENDLINE MARCH /APRIL 2018	% CHANGE	BASELINE MARCH /APRIL 2015	ENDLINE MARCH/APRIL 2018	% CHANGE
No	99.2%	89.4%	-9.88%	19.7%	40.4%	105.08%*
Yes	0.8%	10.6%	1,225%**	80.3%	59.6%	-25.77%**

Note: **Statistically significant at the 0.05 test level

Based on FGD, as a result of WASH and IYCF interventions, people no longer openly defecate. This is supported by the significant improvement in open-defecation-free (ODF) communities in the sampled enumeration area. RING reported that 456 communities had been declared open-defecation-free as of the end of September 2018. Data gathered from the field indicate that while open defecation incidence at baseline was 80.3 percent, the situation at endline had improved to 59.6 percent in the SPRING/RING/LEAP coverage area, representing an improvement of 25 percent since baseline.²⁴ Open defecation among LEAP households at endline (57.6 percent) was slightly lower than among the general population.²⁵ Those who do not have access to latrines dig and bury their feces. Some of the FGD respondents thought the number of flies had declined because people no longer openly defecate, which has also reduced disease and bad odors.

To examine potential association between ODF communities and nutrition outcomes (e.g., wasting, stunting and underweight), the team compared ODF versus non-ODF communities, but found no statistically significant association. Nonetheless, households in non-ODF communities had higher rates of stunting (32 percent) compared to ODF communities (13 percent). In addition, underweight was 28 percent in non-ODF community compared to about 9 percent in ODF communities. There was less difference in wasting, with 14 percent in non-ODF communities versus 13 percent in ODF communities. Although these findings are not statistically significant, they do show important possible differences in outcomes between ODF and non-ODF communities.

Many people now have latrines in their households or are in the process of installing them. During the KIs and FGDs, a respondent noted, “Now we have toilet facilities and it has reduced the risk of going into the bushes at night and stepping in someone’s stool. Having a toilet in the house is beneficial to us” (KII Adibo).

The type of toilets available in households has improved remarkably: at endline, 23 percent of households had an improved toilet facility, compared with 14.2 percent at baseline. However, when households were asked about what type of toilets are available to them, majority (71.3 percent) reported none and 13.3 percent reported pit

²³ Tippy taps are “simple and economical handwashing stations, made with commonly available materials and not dependent on a piped water supply.” (U.S. Centers for Disease Control and Prevention)

²⁴ Data collected on use of handwashing facilities and open defecation are specific to communities and cannot be disaggregated by sex.

²⁵ LEAP households are selected based on specific criteria (e.g., orphaned and vulnerable children, disability and elderly) and a vulnerability assessment. In addition to cash transfers households receive educational support in nutrition.

latrines. According to W4H, 111,744 people have gained access through project construction of 13,968 latrines. Having no money was the most common reported challenge for households to construct latrines.

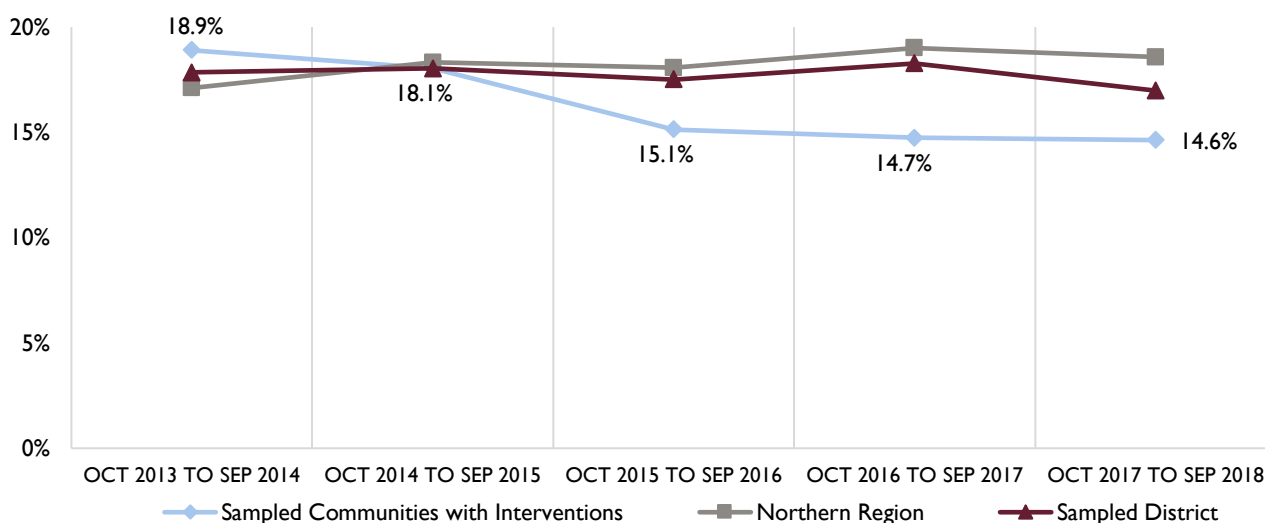
TABLE 14: TOILET FACILITY AVAILABLE FOR USE IN THE HOUSEHOLD

TOILET FACILITY	BASELINE 2015	ENDLINE 2018	% CHANGE
Unimproved	85.8%	77%	-10.26%**
Improved	14.2%	23%	61.97%**

Note: ** Statistically Significant at the at the 0.05 test level

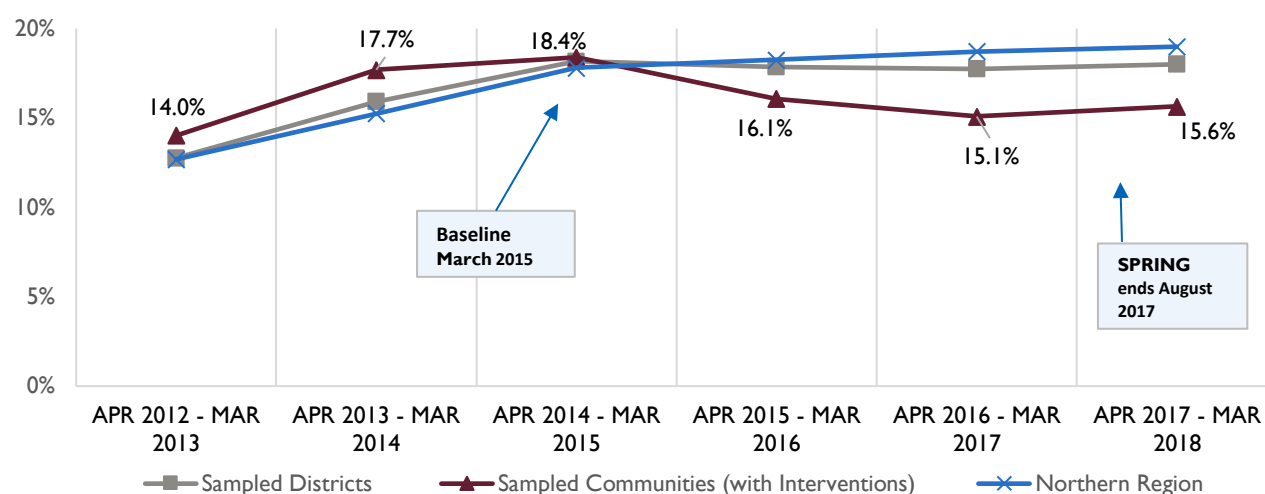
The study used the percentage of outpatient department (OPD) cases diagnosed as diarrhea diseases as a proxy to measure the effect of water and sanitation interventions in the project area. For children younger than 5 years, the percentage of OPD cases diagnosed as diarrhea has declined steadily in communities with interventions (sampled communities) compared with the entire region. DHIMS2 data show a -15.2 percent change over baseline in incidence of diarrhea within health facilities located in the intervention enumeration areas. The evaluation team also found that although other development partners such as World Vision also worked in the intervention area, it is safe to conclude that USAID projects contributed in some measure to reducing the incidence of diarrhea in the intervention area.

FIGURE 5: TOTAL OPD CASES ATTRIBUTED TO DIARRHEA FOR CHILDREN UNDER 5 YEARS, 2012 TO 2018²⁶



²⁶ Source: GHS DHIMS 2 Retrieved on June 12 2018

FIGURE 6: TOTAL OPD CASES DIAGNOSED AS DIARRHEA DISEASES, CHILDREN UNDER 5 YEARS, 2014 TO 2018²⁷



FGDs respondents expressed a clear understanding of the benefits of good sanitation practices and talked about how WASH interventions have helped the communities adopt positive practices in their daily lives. At endline, 53.7 percent of households reported having heard messages about sanitation and 69.6 percent heard hygiene messages, which was an increase from the baseline (60.7 percent). They gave examples of families now washing their hands with soap and water after defecation and before cooking and of children being asked to wash their hands after playing outside and before eating. Respondents also mentioned families keeping their homes tidy and clean, including sweeping and cleaning the cooking area (washing dishes and discarding waste in a bin, which prevents food contamination). Respondents also talked about the first Wednesday of every month, which has been designated as a clean-up day; everyone tends to their immediate surroundings to help keep the environment clean.

Based on the FGDs, families believe that practicing good sanitation results in fewer hospital visits. Falling ill was a regular occurrence, but many people noted a significant decline in seeking medical care due to proper sanitation. People specifically mentioned not being able to remember the last time they fell ill after they implemented hygienic practices. They also mentioned reductions in diarrhea, malaria and dysentery.

EVALUATION QUESTION 1B

1b. What effect does access to quality foods and nutrition have on health outcomes of vulnerable women and young children in northern Ghana?

SPRING and RING implemented a variety of interventions with an objective of increasing access and consumption of varied quality food (e.g., diversity in food) among targeted households and addressing the challenges with complementary feeding as discussed above. These interventions include village savings and loans associations (VSLA), orange-fleshed sweet potatoes (OFSP), cooking demonstrations, leafy green vegetable (LGV) production with drip irrigation, soybeans and groundnut activities, among others. These interventions, in addition to the infant and young child feeding (IYCF) interventions, were expected to improve complementary feeding practices in addition to maternal and child food diversity.

²⁷ Source: Ghana Health Service DHIMS 2 retrieved November 3, 2018

The projects focused on addressing the challenges of adequate nutrition within the first 1,000 days of a child's life. Both RING and SPRING adopted best practices in IYCF as a key strategy, including building the capacity of health workers, community volunteers and other actors, such as mother-to-mother support group (MTMSG) facilitators, to educate and support women and caregivers to adopt adequate IYCF practices, including exclusive breastfeeding. GHS defines “exclusive breastfeeding” as feeding babies younger than 6 months only breastmilk. Breastfeeding is vital in the survival of children younger than 6 months.

At endline, 99.6 percent of children had ever been breastfed. However, only 62.1 percent of women reported exclusively breastfeeding, a slight increase (1.8 percent) from baseline (see Table 15), but higher than the 2014 DHS national rate of 52.3 percent. During interviews, women confirmed that they learned about breastfeeding practices from IYCF sessions, but also reported that “infant required water to quench thirst” or there wasn't enough breastmilk as a common reason they did not exclusively breast feed their infants under six months of age.

The endline data for age-appropriate breastfeeding (exclusive breastfeeding up to 6 months of age, with continued breastfeeding along with appropriate complementary foods up to 2 years of age or beyond) had a statistically significant improvement in percent change over baseline of 14.5 percent, from 72.2 to 82.7 percent. This is higher, even at baseline, than the 2014 DHS reported 69 percent for age-appropriate breastfeeding.

TABLE 15: KEY BREASTFEEDING INDICATORS

INDICATORS	BASELINE MARCH/APRIL 2015	ENDLINE MARCH/APRIL 2018	% CHANGE
Ever Breastfed	98.5%	99.6%	1.1%
Exclusive breastfeeding (<6 months) *	60.3%*	62.1%	3.0%
Age appropriate breastfeeding	72.2%	82.7%	14.5%**

Note: * baseline report figure for the RING SPRING baseline used. ** Statistically significant at the 0.05 test level

This improvement is key given that introduction of complementary foods at the appropriate time is critical in ensuring that children meet their nutritional requirement beginning at age 6 months. Most challenges with malnutrition begin in children at that age because of difficulties with introducing complementary foods in terms of timing, quality and frequency of feeds.

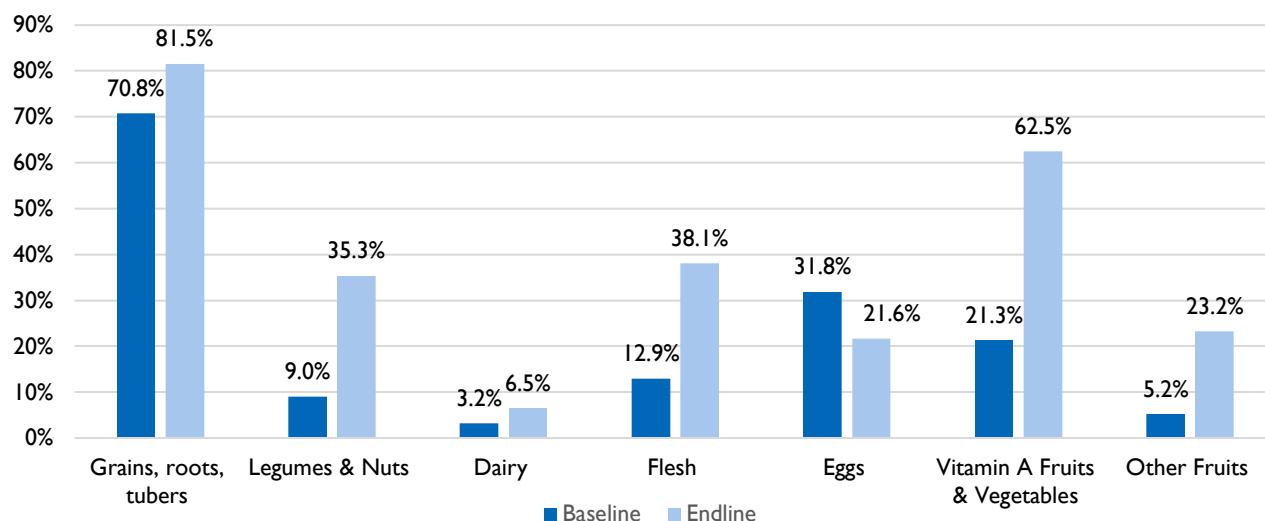
TABLE 16: KEY COMPLEMENTARY FEEDING INDICATORS

INDICATORS	BASELINE MARCH/APRIL 2015	ENDLINE MARCH/APRIL 2018	% CHANGE
Introduction of solid, semi-solid or soft food, ages 6 months to 8 months	29.6%	50%	68.9%
Minimum dietary diversity score (MDD)	5.8%	34.5%	494.8%
Minimum meal frequency (MMF)	48.6%	58.1%	19.5%
Minimum acceptable diet (MAD)	3.6%	30.1%	736.1%

In the introduction of semi-solid food (proportion of infants aged 6 to 8 months who receive solid, semi-solid or soft foods and breast milk), there was a 68.9 percent change from the baseline (29.6 percent) to endline (50 percent). The endline showed remarkable increases in the minimum dietary diversity score; the proportion of

children aged 6 to 23 months receiving food from four or more of the recommended seven food groups²⁸ increased from 5.8 percent at baseline to 34.5 percent at the endline. Although the main food group consumed by households remained grains, roots and tubers, in the last 3 years there has been significant increases in meat, vegetables, legumes/nuts and fruit. However, consumption of eggs, another key food group, decreased from 31.8 percent to 21.6 percent (see Figure 7).

FIGURE 7: CHANGES IN FOOD GROUPS CONSUMED BETWEEN BASELINE AND ENDLINE



Note: With the exception of dairy products % change between baseline and endline is statistically significant at the 0.05 test level for all other food groups

Further, minimum meal frequency (MMF- the proportion of breastfed and non-breastfed children aged 6 to 23.9 months who receive solid, semi-solid or soft foods or milk feeds at least the minimum number of times) also showed remarkable improvement, from 48.6 percent to 58.1 percent. The percentage of children aged 6 to 23 months who receive a minimum acceptable diet (MAD) apart from breast milk increased from 3.6 percent to 30.1 percent. The MAD indicator measures both the minimum feeding frequency and minimum dietary diversity, as appropriate for various age groups. These results show that the interventions of RING and SPRING likely contributed to improving the complementary feeding practices by improving the timely introduction of complementary foods, meal variety and frequency of feeding.

In terms of nutrition education, more households during the endline (46.2 percent) reported receiving IYCF counseling compared to the baseline (27.2 percent) and the 35.8 percent at baseline who reported hearing nutrition messages in the past month increased to 51.6 percent. Most of the messages they reported hearing were about early breastfeeding, complementary feeding and maternal nutrition, although handwashing and sources of iron-rich food were also mentioned. A large majority of the households reported hearing these messages through their health providers or community health volunteer. There was a small increase of households that heard messages on the radio, from 12.1 percent at baseline to 14.2 percent at endline. However, households that reported hearing it from a friend decreased from 15.4 at baseline to 5.5 percent at endline.

These findings are supported by some of the community-level FGDs and KIs. Many of the interviewed women reported learning about healthier foods and diet (e.g., food diversity), including breastfeeding and how that contributes to the overall health of their children. FGD participants shared what they had learned, giving examples about how to hold the breast while breastfeeding and the importance of eating leafy green vegetables. Some talked

²⁸ 1. Grains, roots and tubers; 2. Legumes and nuts; 3. Dairy products (milk, yogurt, cheese); 4. Flesh foods (meat, fish, poultry and liver/organ meats); 5. Eggs; 6. Vitamin A-rich fruits and vegetables; and 7. Other fruits and vegetables.

about changing their behaviors and diversifying food for their children. A respondent indicated that the interventions had helped them to increase the variety of food they and their children consume.

“Soybeans and sweet potato are now common in the community which was not the case before. Consumption of meat in most households has also improved due to increased knowledge of IYCF.” (Community-level FGD, Zandua)

Other respondents expressed challenges with trying to implement what they learned due to the lack of money. Although they had increased their knowledge about healthy eating practices, they were often unable to purchase quality food, or it was not available all year around.

“Our challenge with regards to access to diverse food is poverty. We only cultivate maize, yam, cassava and groundnut. ... We only eat TZ, Banku and Fufu. There might be other foods available but due to lack of money, one can't buy them to come and eat.” (Community-level FGD, Kabilpe)

At endline, households with LEAP performed marginally better, although data are not statistically significant, regarding issues around complementary feeding when compared with non-LEAP households, especially for MDD, MMF and MAD. The qualitative interviews indicated that as a result of the cash transfer, LEAP-supported households had more disposable income to spend on food, especially during the lean season.

“Without financial help (LEAP), one cannot buy diverse foods. The beneficiary household uses their stipends to buy diverse foods for their household consumption, which they were not able to buy when they were not on the LEAP program. This has helped their household members to have more diverse foods to eat than in the past.” (Community-level FGDs, Kpabia)

TABLE 17: KEY COMPLEMENTARY FEEDING INDICATORS, LEAP AND NON-LEAP COMPARED

INDICATORS	WITHIN LEAP HH ENDLINE %	WITHIN NON-LEAP HH ENDLINE %
Minimum DDS	36.4%	33.6%
Minimum meal frequency	63%	56. 9%
Minimum acceptable diet	33.3%	30.3%

Note: Not statistically significant at the 0.05 level

EVALUATION QUESTION 1 CONCLUSIONS

- While the changes (approximately 1.3 percent)²⁹ observed from baseline to endline in terms of stunting, wasting and underweight among children younger than 5 years were not statistically significant, there were significant associations in terms of the impact of open-defecation-free practices and handwashing on stunting, wasting and underweight for children under 5. High rates of severe wasting could be related to seasonal food shortages, while a rise in severe underweight could reflect worsening of short-term nutrition for the most vulnerable populations.
- Project interventions likely contributed to improvement in the minimum dietary diversity, minimum meal frequency and minimum acceptable diet scores and in complementary feeding practices within the target population. However, over the three-year period under study, these changes have not yet affected under-5 nutritional status indicators.

²⁹ Certain environmental factors, including seasonal food shortages (see body of report for details), may have contributed to continued high rates of severe wasting and severe underweight.

- Increased access to improved water sources and toilet and handwashing facilities and a decrease in open defecation have improved communities' sanitation. Increased access, along with other practices such as community cleaning, contributed to communities' perception of improvement of their overall health. The decrease in the incidence of diarrheal diseases in the communities with interventions is additional evidence of improved health.
- While breastfeeding is widely practiced in the surveyed area, adoption of exclusive breastfeeding for children under 6 months of age will require sustained support since it is much lower than the ever-breastfed indicator.

EVALUATION QUESTION 2

2. What effect have community-level nutrition activities (via RING, LEAP and SPRING) had on improving the resilience of household food consumption?

EQ2 examines whether community-level nutrition activities (e.g., IYCF, VSLA, OFSP) have contributed to improving the resilience of household food consumption, a key measure of nutritional resilience that includes increasing the quantity, but also improving the diversity, of food. (For a breakdown on types of interventions by district and enumeration area (community), please refer to Annex F). For USAID, resilience is the ability of households, communities, countries and systems to mitigate, adapt to and recover from shocks and stresses in a manner that reduces chronic vulnerability and facilitates inclusive growth. Under this definition, an increase in household or community resilience capacity should either a) reduce the effect of a shock on a household or individual's well-being or b) ensure a quicker recovery from a shock to the household or individual's economy. Resilience is not itself an outcome, but a set of capacities that mediate the effect of a shock on a well-being outcome. USAID projects seek to improve well-being in the context of a landscape of shocks by strengthening resilience capacities through measures to increase knowledge or access to food at the individual, household and community levels.

Assessing resilience requires measures of shock exposure, resilience capacity and well-being. This EQ asks whether community-level nutrition activities via RING, LEAP or SPRING improved the resilience of household food consumption. The evaluation used a resilience analytical model using household food consumption as the well-being measure, duration/severity of the lean season and crop production as the shock variable and exposure to a donor intervention as a proxy for a change in resilience capacity. In determining resilience of household food consumption, the study examines three key variables:

1. Outcome (well-being) variable: ability to provide three full meals each day throughout the year;³⁰
2. Shock variable: length of the lean season and crop production; and
3. Exposure variable: interventions implemented in the community by SPRING and RING.

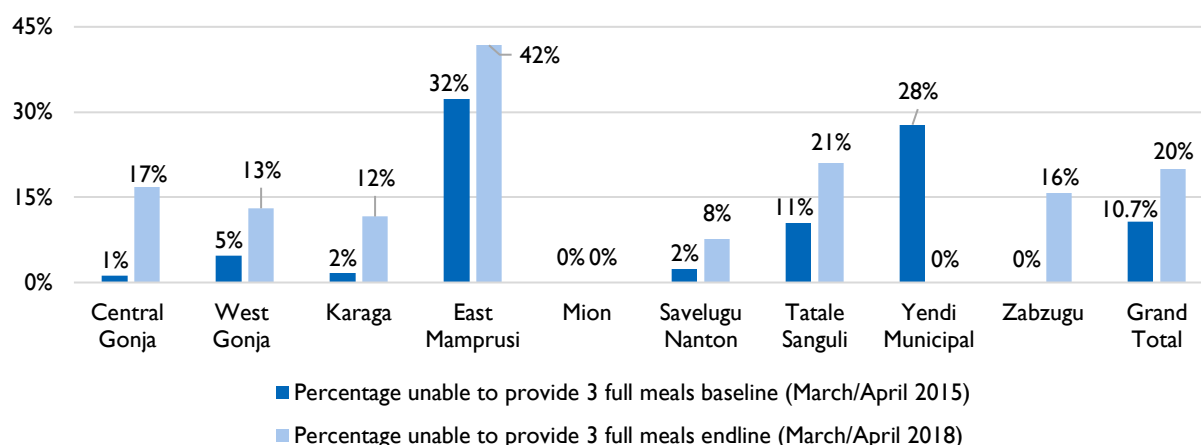
OUTCOME VARIABLE – FOOD CONSUMPTION

The percentage of households reporting they were *unable* to provide three full meals throughout the year doubled from 10.7 percent to 20 percent at endline (see Figure 4). In the survey, three full meals were defined as the ability to provide breakfast, lunch and dinner, and was self-reported data. All districts except Yendi and Mion had remarkable increases in the percentage of households that were unable to provide meals throughout

³⁰ This measure was chosen and approved by the steering committee based on the availability of relevant data from the 2015 RING/SPRING baseline

the year.³¹ At baseline, 89.3 percent of households reported being able to fully feed all members of the household; this dropped to 80 percent at endline. In addition, at baseline, 92 percent of households reported being able to fully feed all members of the household. At endline, this dropped to 83 percent, which represents the same percentage drop as for providing three meals throughout the year (approximately 10 percent). This drop could be due to issues of food security (e.g., loss of crop, drought, etc.) which were mentioned during the qualitative interviews and discussed further below.

FIGURE 8: HOUSEHOLDS UNABLE TO PROVIDE THREE FULL MEALS, BASELINE AND ENDLINE COMPARED



Note: difference between baseline and endline statistically significant at the 0.05 level for all districts except districts reporting zero.

During the KIIs and FGDs, respondents also explained that large households had the most issues with food consumption; this was usually the case for households of more than 10 people.

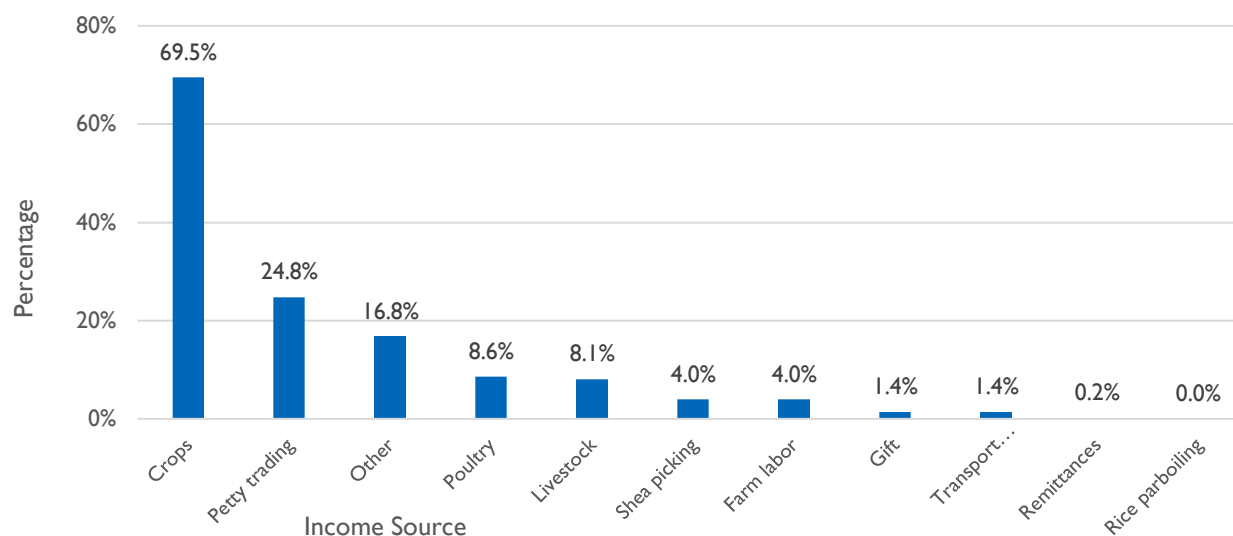
“We end up harvesting very little, which cannot sustain the whole household to the next farming season. And so for large households, it is difficult for their harvest to sustain them until the next farming season.” (Community-level KII, Behisung)

SHOCK VARIABLE – SEASON LENGTH AND CROP PRODUCTION

In the surveyed areas, almost 70 percent of households rely on crops as their main source of income (see Figure 5). As agriculture is the predominant source of income, bad seasons have a large impact on these communities. Respondents referenced the serious effect of last year’s drought on incomes in many households.

³¹ Rural communities do not always consume three meals a day, especially when spending all day in the field; instead, they tend to have morning and evening meals. Responses nonetheless indicated a significant drop in the ability to provide three full meals a day as compared to the baseline data.

FIGURE 9: SOURCES OF INCOME FOR HOUSEHOLDS AT ENDLINE



As noted, many interview respondents reported various crop and weather challenges, with some also reporting longer lean seasons. However, an equal number of respondents thought the lean season was longer or shorter (40 percent), while the remaining 20 percent thought it the same. The variation in answers could be based on geographic differences. It is noteworthy, however, that among the subset of 125 respondents who answered that the lean season was longer, all reported that they could not fully feed their family,³² suggesting a relationship between length of the lean season and food consumption (e.g., access to food). Changes in rain patterns and extreme weather events are becoming an increasing challenge for farmers in the north. Continuing delayed starts to the wet season and shortened growing seasons are documented in many studies, along with increases in temperatures and risks of droughts and floods.³³ Based on the literature and respondent feedback, these weather changes interfere substantially with the household's ability to grow enough crops for income and consumption. In addition, households reporting a regular source of income decreased from baseline (87.8 percent) to endline (53.2 percent). Only about 55 percent of households reported that they produce enough to eat and have extra to sell. Reported surplus crops were mainly maize, tubers and groundnuts. About 57 percent of households reported that last year's income in sales of crops and animals was higher than this current year, while 11.7 percent thought it was the same and 29 percent thought the current year was higher.

EXPOSURE VARIABLE – INTERVENTIONS

Based on the responses from the community FGD and KIs, the main interventions that contributed to helping households during the lean season were VSLA and LEAP. Other interventions mentioned included small ruminants which could be sold during the lean season, IYCF which increased households' knowledge about nutrition in the lean season, and agriculture interventions, particularly soybeans and green leafy vegetables, which provided food during the lean season.

VSLA: In the RING project area, VSLAs were operating in 1,467 communities (23 percent above target) and 2,822 mother-to-mother support groups had been formed (58 percent above target). Overall, as of September 2018, 85,202 VSLA members as a whole had saved GHS 21.73 million (USD \$4.85 million) and had

³² The fact that all 125 respondents who reported a longer lean season also reported food insecurity prevented use of the shock variable in a resilience model calculation. Because there was no variation in the outcome variable, the team could not do any analysis of a resilience model to look at a treatment variable mediated by a shock variable.

³³ "Climate Change Profile, Ghana", Ministry of Foreign Affairs, April 2018, https://reliefweb.int/sites/reliefweb.int/files/resources/Ghana_1.pdf

issued GHS 7.15 million (USD \$1.42 million) in loans.³⁴ Many respondents reported positive outcomes from VSLA interventions, especially helping to organize and empower women. According to one district director of agriculture, the blend of VSLA and support for soybeans, OFSP and vegetable farming under the RING project was a beneficial approach since the VSLA gives the women credit to support their farming activities, which provide them with money to repay their loans, make their VSLA contributions and improve their families' livelihoods.

FGD respondents noted that VSLA helped households face challenges, especially in the lean season, by providing access to soft loans to buy food or pay school fees, or to invest in additional income-generating activities. Most FGD noted that the VSLA is especially beneficial to women, enabling them to save money, address food consumption challenges or initiate other livelihood activities that help them respond to shocks.

"I think the VSLA has been of most benefit because in the lean season there is usually not enough food at home and through the VSLA, you can borrow money and go and buy food and repay later." (Community-Level FGD West Gonja Mognori)

"The VSLA also provides capital to some of the women in the form of loan use for business which increases their income and ability to buy more and diverse food for their household during the lean season and so it also helps increase household food intake during that period." (Community-level FGD Lатаригу)

LEAP: The LEAP program entails cash grants paid every two months to registered vulnerable household members in selected communities, such as the aged (65 years and older without any form of support), orphaned and vulnerable children, the severely disabled without productive capacity and extremely poor or vulnerable households with pregnant women and mothers with infants. The LEAP in the Northern Region covers 43,235 households, 85 percent of which are located in SPRING/RING supported districts. Households with one eligible member receive GHS 64 per two-month payment cycle, while households with two or more eligible members receive up to GHS 106. Data from the NRCC department of social welfare reveal that a total of GHS 3,507,491.08 was distributed in one payment cycle.³⁵ Community-level interview respondents who either participated or knew families that participated in LEAP reported benefits of the LEAP cash grants during the lean season. Respondents felt the cash enabled them to make it through the lean season by providing an income they would not typically have.

"LEAP has helped to increase household income during the current dry season because the monthly stipends beneficiaries receive money during the dry season, which adds to the household income which increases it. Others also invest the money into farming or other businesses which gives them money and so increases their household income." (Community-level FGD Lатаригу)

"LEAP has been most helpful in addressing the household food consumption problem...LEAP has helped me because I am able to buy food out of it for me and my children to feed on. I have also been able to reserve some money to buy an animal to rear out of the LEAP stipend." (Community-level FGD West Gonja Busunu)

Other Interventions: In addition to VSLA and LEAP, other respondents felt small ruminants, IYCF and different agricultural support helped them during the lean season. Respondents had mixed feedback on the small ruminants. Many reported that they felt the sheep they were provided allowed them to raise more animals and sell animals when they were low on cash (e.g., lean season).

³⁴ RING SAVIX Database

³⁵ NRCC/Dept. of Social Welfare Data LEAP website: <http://leap.gov.gh/>

“I also think the sheep given to us has had the most benefit. Now that I have the sheep, in case am sick and do not have money, I can sell some and go to the hospital. Also, if there is no food at home, you can sell some and buy food to feed the household.” (Community-level FGD West Gonja Chama)

“We were given 5 sheep each but when the sheep give birth, the young ones usually die and now almost all have died.” (Community-level FGD West Gonja, Damongo)

Respondents mentioned agricultural interventions as being helpful, particularly soybeans. While other crops like OFSP, ground nuts and leafy green vegetable were mentioned as helping food consumption and diversity, many respondents felt that soybeans had helped them particularly during the lean season. One respondent in Zandua mentioned that soybeans have become the “commonest food available during the dry season.”

“The support for soybeans cultivation has had the most benefits in increasing household food intake during the dry season because most households now depend on soybeans during the lean season for their household food consumption. This is because the intervention has increased the availability of soybeans in the community and households such that even those who don’t produce it are able to afford it because it is relatively cheaper now.” (Community-level Samene)

IYCF was also mentioned by community-level respondents in terms of increased knowledge about food consumption. Although many households reported difficulty always obtaining nutritious food, most respondents confirmed the importance of learning about nutrition food.

“IYCF education helped to increase nutrition-related behaviors of mothers during the lean season. Mothers now know the healthy foods to combine and give to their children during the lean season, considering the types of foods available during that period. Children are now served meat, eggs and fish as part of their diet now that we know their importance in the growth of our children.” (Community-level FGD Ningare)

Based on the household endline survey data, almost all respondents (98 percent) had received IYCF messaging from at least one source, e.g., counseling or radio, etc., in the last one month and 58.7 percent had received messages from at least two sources. Most respondents felt that health providers and community health workers/volunteers were the best way for this information to be delivered. At endline, 46 percent reported receiving IYCF counseling, compared to 27 percent at baseline. In addition, increases occurred in both husbands/spouses who talk about IYCF (from 30.5 percent to 59 percent) and the men in the household who provided IYCF support (from 37 percent to 43 percent). The most common example of support was providing healthy food, such as leafy greens, chicken etc. for the children.

Overall community-level respondents mentioned the combination of interventions as contributing the most to addressing food consumption, especially during the lean season. Key aspects of each intervention addressed different vulnerabilities of the households, but the primary vulnerability mentioned throughout the interviews was lack of income.

“Investments made into farming using the LEAP and VSLA monies also helped to increase farm yield which together with the support for the soybeans cultivation helped increased the amount of food available in the household during the dry season which has reduced their expenditure on food thereby helping them to save more income. Some are also able to sell some of the excess food to make extra income.” (Community-level FGD Ningare)

CHALLENGES IN ACHIEVING THE RESILIENCE IN FOOD CONSUMPTION OUTCOME

Most KII and FGD respondents agreed that lack of income and money (e.g., poverty) is the main reason for a lack of food/meals and diversity in foods. Most households rely on agricultural production, and respondents mentioned

the challenge of income due to poor agricultural seasons. Key informants explained that the fundamental causes of low productivity were the irregular rain pattern last year, a fall armyworm invasion, declining fertility of the land, late planting and infestation of some weeds.

“In this community, our yield reduces year after year. We do not understand. It may be the fertility of the soil. Last year’s yield was less than that of two years ago, and this year’s yield was less than last year’s. There is a particular weed, ‘bochaa,’ which now grows in our farms.” (KII Community Leader)

“The truth is that there is a reduction in household food consumption in many households due to low agricultural output. Our crops don’t do well again, and the armyworm has made it even worse.” (Community-level FGD, Kpabia)

“The challenge is that now the rainfall pattern is poor, and so even when you cultivate a variety of crops, most of them spoil.” (Community-level KII)

FGD respondents noted that although they were taught about nutritional eating habits, they could not always afford healthy foods, or that other food was available only seasonally. Even though soybeans were mentioned as being beneficial, one respondent in Kuntumbiyili felt the intervention would have been more helpful had they not experienced drought last year. Others noted that the OFSP crop, which was expected to cushion households for the lean season and provide diversity into their diets, did not last the duration of the lean season, while crops such as maize, beans and groundnuts could be stored for longer periods.

“Though the orange-flesh sweet potato is nutritious, it doesn’t last for a longer time to the lean season for the household to rely on. In one way it has helped, but the orange-flesh sweet potato hasn’t solved the household food consumption challenges in the lean season.” (KII assemblyman, Central Gonja)

Some respondents mentioned selling the sheep they had received from the project as a source of income or to afford food during the lean season. A handful of respondents noted that their sheep had fallen sick and died, sometimes shortly after receiving them.

EVALUATION QUESTION 2A

2a. Will any interventions sustain after USAID financial support ceases?

Based on the KII and FGD interviews, four interventions are most likely to sustain into the future: VSLA, OFSP, WASH and low-cost nutrition interventions

VSLA is not capital intensive and is a savings and loan mechanism that members have seen work firsthand. RING trained VSLA members from the VSLA launch in business planning, basic financial literacy and numeracy, setting a constitution and electing members, and establishing group norms and rules. VSLA facilitators checked in on groups to ensure that they had undertaken key steps and that group secretaries and other key members understood their roles. Without this, records could have been incorrectly kept, resulting in people losing money (inadvertently or on purpose) and abandoning the VSLA. According to RING staff, *“the importance of that continued support through the first 1.5 to two years cannot be understated.”* RING’s approach has been successful in terms of amounts saved, longevity of groups, and the overall health and maturity of groups, compared to VSLAs that simply have a box and begin saving each week.

The concept has caught on in the communities and is being replicated outside the project because community members have observed how the VSLA improves their livelihood.

“With the VSLA, even if RING leaves today, the scheme will continue to exist because we have benefited a lot from it. Now, we ourselves have also organized our friends where we come together to contribute monthly, and we take it in turns. I think this was as a result of our experience from the VSLA.” (Community-level KII, Central Gonja)

These findings confirm RING’s earlier performance analysis of VSLAs, as reported in their FY 2018 Quarter I report, which noted that *“all the groups meet an acceptable health determination (i.e., high meeting attendance rates, excellent knowledge of saving amounts by members, and generally good enforcement of VSLA rules) and have a very high likelihood of continuing, even as district monitoring support is strategically reduced.”*³⁶

According to the KII and FGDs with community members, VSLA savings were used for farming, addressing issues around school fees, and household food consumption. The VSLA helped to improve the habit of saving among women which has helped them set up small businesses or even support their husbands with farming needs. One example that was given was a yam frying business, which only required GHS 100 to buy yams, oil and a frying pan. Based on the survey, at the endline, about 71.6 percent of households reported saving at least “a little” of their income after they sell their surplus crop.

As VSLAs have become popular, challenges have included theft of the VSLA box in the community, which was reported twice to the evaluation team. According to RING, theft has been reported fewer than 15 times in their more than 3,000 VSLAs. However, people are becoming aware that money is being stored within these boxes. Security of the box is an issue that needs to be addressed.

The evaluation team observed that the **mother-to-mother support groups (MTMSGs)** and father-to-father support groups (FTFSGs) are closely linked to VSLAs. RING often implemented these groups through the VSLAs, using the already formed group platform to introduce new interventions.

“Most of the communities are beginning to own these interventions. For instance, the mother-to-mother support groups are in the communities and they meet; the latrines they construct are for their use, so they own it, and the volunteers live in the communities with them, so I think it will be sustained.” (Community-level KII, Zabzugu)

However, certain KII respondents felt that the over-centralization of the MTMSG/FTFSG intervention at the district level instead of at the subdistrict and facility levels could affect the sustainability of these groups after RING ends. They noted the importance of having MTMSG monitoring and support occur at the community level to promote buy-in and ensure sustainability, especially of weaker groups, rather than centralizing monitoring at the district level.

“The DHMT team, for whatever reason, has the tendency of centralizing all the activities at the DHMT [level]. Although the DHMT has ownership of the project, the DHMT itself has some key stakeholders, like the subdistricts, they have all the facilities, the health centers and (community-based planning and services) compounds. ... What we got to learn along the line is the district again centralizes this activity, so even if we have a mother-to-mother support group, the mothers receive training but the monitoring is poor. (KII RING)

OFSP cultivation has a high potential of continuing as a result of structures already in place for its sustainability. Data from the RING project indicate that OFSP was implemented in 1,313 communities, with 918 communities added in 2018 alone. Before 2018, 5,560,249 vines were distributed; this number increased to 18,404,702 vines by the end of FY 2018. Initially, the project teamed up with the University for Development Studies (UDS) for the production of the vines. However, community- and district-level vine production was introduced in 2018 and these

³⁶ Resiliency in Northern Ghana (RING) Quarterly Report FY 2018 (October 1, 2017 – December 31, 2017)

vine centers have been able to ensure continuous vine availability. In FY 2018, only three districts were unable to multiply their vines.

“... contracted UDS to multiply vines and supply, but the districts came up and said the project would end and they can’t depend on UDS, because UDS will need to be paid to supply the vines. So they set up their own vine sites, built the capacity of people to make sure that vines are continuously available. And they requested for technical support and this year, at least, the majority of the districts did, and supplied to farmers in their district. Only three districts could not multiply their own vines.” (KII RING)

During the interviews, some beneficiary respondents reported that they will be continuing to grow OFSP and provide diversity in their diets. Respondents explained that OFSP had been added to their diet after they learned to cook with them, and one respondent mentioned that “children even eat it raw.” In Central Gonja, Kabil, FGD respondents expressed that there was a high “market demand for OFSP and its cultivation increased household income.” In the qualitative interviews, health workers and community members also talked about its nutritional benefits, including being a good source of vitamin A.

“Some of us even give out to those who don’t have. Last year for instance, some were able to cultivate the OFSP without getting the stems from RING directly, but they had the stems from other people in this community. We are supporting each other especially with regards to soybeans and OFSP cultivation.” (Community-level FGD West Gonja Murugu)

“The support for the cultivation of soybeans and sweet potato as well as how to prepare nutritious foods from the soybeans and sweet potato have improved availability and diversity of food. Income levels of households have also improved which has also improved access to diverse food as household are able to buy other foods items for their household consumption”. (Community-level FGD Zandua)

KII respondents noted that while the populace has accepted OFSP as part of their food, some issues of water drying up affected cultivation as well as late delivery of seeds for planting. Both affected farmers’ ability to produce the crop. Another major challenge with OFSP identified in the KIIs was that surpluses did not last the duration of the lean season, which was one of the hopes for the crop. They felt however that OFSP still provided nutritional value when available and shows potential for sustainability from the uptake by communities.

WASH interventions, including CLTS, are also likely to be sustained. The Northern Region Environmental Health Unit (EHU) has a mandate of attaining regional ODF status by 2019 and is working with other partners in addition to RING to achieve this status. The EHU intends to push for more communities to be declared ODF free. A case in point regarding a sustained regional WASH focus is the publication of the Regional League Table on ODF which the EHU compiled and published with other partners when USAID funds were delayed.

“The CLTS will also be sustained since it’s in line with the regional vision of attaining regional ODF status by 2019. I think the region will push and support the districts to sustain the activities under the CLTS, like triggering communities to attain ODF status.” (Regional-level KII)

The creation and enforcement of community bylaws and the role of natural leaders are also seen as project-facilitated structures now in place that will help ensure the sustainability of CLTS.

“Some communities have bylaws. Communities that achieve open-defecation-free status are given rewards with durbars organized for them. The natural leaders are also in the communities to help the program continue. As I said earlier on, these are people who have influence in the communities, command respect and shown a keen interest in the project and have undergone some training. They do daily monitoring before the district teams also go into the communities to do their checks.” (KII STK)

Other respondents believe that these practices will be sustained based on the benefits that community members derive from the WASH intervention.

“People have now seen the benefits of the good WASH practices on their health, and so will want to continue to get the health benefits. People have learned so much from the WASH interventions, such that they are not just practicing the good WASH practices for practicing sake, but they know the benefits associated with the practices. And so I think we will all continue with all the WASH practices for our own health.” (KII West Gonja)

However, sustaining these activities will require ongoing monitoring. A few communities have relapsed after being introduced to WASH interventions. A critical issue is the reconstruction of latrines or handwashing stations after they fill up or are damaged.

“Handwashing practices improved significantly because almost every household was able to construct a tippy tap for handwashing, but the practice is going down again because most of the tippy taps are spoilt now and have not been reconstructed.” (KII Jelikon)

“When they came, the understanding was that households were just to dig the hole and Global Community will provide all other materials for the construction of the latrines. So later when it turned out that households were to provide the materials for the construction, almost all households abandoned the project, as they did not prepare for the financial cost and planned to do it the subsequent year. But due to serious water shortages in the community, the construction of the latrines has still not been done, even though community members are still committed to constructing the latrines.” (KII Sawla Tuna Kalba)

Through USAID/Ghana support, 707 area mechanics, pump caretakers and latrine artisans have received training to maintain assets in water and sanitation. The project will need to continue this drive to training more people, especially area mechanics and latrine artisans. As the regional EHU officer noted, the availability of latrine artisans will be crucial in sustaining the gains made in CLTS.

Low-cost nutrition interventions that fall within GHS mandate are likely to be maintained, including quality improvement, anemia prevention and control, CMAM, community IYCF, ENA and nutrition-related training, cooking demonstrations, MTMSGs, logistics management of nutrition interventions, monitoring and supportive supervision and coaching for nutrition. GHS confirmed that their health staff will continue to use the knowledge acquired through training to educate caregivers and support the MTMSGs and FTFSGs to promote proper nutrition. As for other donor-supported initiatives, post-project funding issues were identified that might affect the scale of the intervention, such as fuel costs and motorbike availability.

GHS specifically identified the quality improvement approach championed by RING and SPRING as a sustainable activity: Several facilities have bought into the approach and have chosen some indicators for improvement, which they track and act on based on the situation to ensure improvements.

Small ruminant sustainability, on the downside, appears limited. Although much effort has gone into ensuring that this intervention contributes to household food diversity, key challenges exist. Even beneficiaries who received the sheep and reported benefits also said they did not always serve as long-term support. One KII in Behisung stated, *“We would have loved it if we were given livestock again. The ones they gave us some years ago, some are dead, and we sold the rest.”* The KII and FGDs indicated that the small ruminants were mostly sold, and money was used to address other household needs.

Although beneficiaries reported some positive aspects about the ruminant, mostly through selling them, they also reported them dying or not being the type of animal, they would have chosen themselves. Respondents at RING and the regional level noted during interviews that small ruminants should not be part of future projects. RING noted that the small ruminant intervention is the most expensive, consuming approximately 20 percent of the

budget. In September 2018, RING reported that 44,655 small ruminants have been distributed with a 15 percent change in the number of small ruminants owned by households.³⁷

“Environmental influence affected most of the sheep, and even currently, I have received information that most of the sheep have died. It seems the conditions where the sheep were raised before they were brought here are not the same, so they could not survive here.” (KII, assemblyman in Central Gonja)

Some district respondents thought that small ruminants could be sustained because the animals will continue to multiply, but many households reported a high mortality rate and illness among the animals they received. Household respondents also reported that animals were sold or even stolen. However, the districts drove the ruminant intervention, at times investing as much as 20 to 25 percent of their annual funds to these interventions without any evidence to demonstrate the success of the intervention.

Others thought the small ruminant intervention was not demand-driven given that recipients had no say regarding the type of animal they received. Although sensitization and profiling of communities take place, the beneficiaries receive the ruminants because someone else, typically at the district level, thinks the ruminant will benefit the vulnerable household. Some would have preferred other interventions over small ruminants if they had the opportunity to choose. Respondents cited gaps in the initial stakeholder consultation.

“Well, if a deep stakeholder consultation were done from the onset, before the implementation of the small ruminant project, I would have given some suggestions. You know, sheep, goats and cattle are ruminants, but in this part of the country, especially in this area, goats thrive better than sheep. It is easier to look after a goat than a sheep. Goats are able to litter in seven months, unlike sheep. So goats more easily multiply than sheep. I will recommend that goats should be introduced instead of the sheep.” (KII, Busunu)

EVALUATION QUESTION 2 CONCLUSIONS

- Despite uptake of community-level nutrition interventions such as IYCF, VSLA and OFSP, decreased yields and lower incomes made households less food-secure at endline than they were at baseline, affecting households' ability to respond to shocks.
- Lack of savings or consistent income sources weakens household resilience and ability to access quality food. VSLAs provide an effective and community-friendly mechanism for savings which can be tapped during the lean season. VSLAs are also effective avenues to implement livelihood programs (e.g., OFSP), since groups are already working together.
- The most sustainable interventions after USAID financial support ceases are those that correspond to community felt needs (VSLA, OFSP, CLTS) or can be assumed by GHS under its current programs and budget (e.g., CMAM, IYCF, ENA, MTMSG and SS).
- Government and community efforts are required to sustain achievements of CLTS and other WASH interventions. Although WASH interventions are often considered sustainable, over time they face the same challenges as other interventions of communities becoming disengaged and materials failing.
- Small ruminant interventions are difficult to sustain. Some challenges could have been avoided through better consultations at the outset and improved planning and adaptation to better target communities and households. However, it is an expensive intervention and there were frequent reports of animals dying prematurely or being sold or stolen. Small ruminants are also usually short-term income sources for households rather than sustainable long-term sources.

³⁷ RING Routine Data – Indicator performance tracking.

- Income is the main barrier to households having regular access to quality food, as demonstrated by qualitative data and LEAP households' higher performance over non-LEAP households concerning household food consumption.

EVALUATION QUESTION 3

3. What are the contributions of district-led planning and implementation in achieving outcomes of interest?

3a. What lessons can be learned about empowering and engaging local government in future similar efforts?

RING is a combined HPNO and Economic Growth/FTF initiative that contributes to the GoG's efforts to reduce poverty and improve the nutritional status of vulnerable populations, especially women and children, in targeted communities of 17 districts in the Northern Region. RING has three primary outcomes of interest: 1) increasing the consumption of diverse quality foods, especially among women and children; 2) improving behaviors related to nutrition and hygiene of women and young children; and 3) strengthening local government support systems to address the continuing needs of vulnerable households. EQ3 focuses on the third component, the contribution of district-led planning and implementation in achieving outcomes of interest and lessons learned from empowering and engaging local government that might inform future similar efforts.

Under the third component, RING works with government structures at the district, subdistrict and community levels to improve their capacities to address governance, nutrition, livelihood, agriculture and WASH interventions for vulnerable populations. RING also supports the NRCC to oversee district and subdistrict grant management. Under the G2G program, USAID provides grants directly to the districts to fund development priorities set by local government officials. Global Communities (GC) is contracted to provide technical assistance to improve local government's financial management, strategic planning, activity implementation and monitoring and supportive supervision of these interventions. This approach is intended to demonstrate the positive impact that investing in and strengthening local government structures can have on improved basic service delivery and accountability at the district and subdistrict levels.

To answer EQ3, the evaluation team first assessed RING's capacity-building efforts to strengthen district-led planning and implementation and then reviewed if and how any improved capacity has contributed to the RING outcomes of interest (e.g., consumption, nutrition behaviors and local governance support systems), as well as key lessons learned about empowering and engaging local government.

BUILDING CAPACITY FOR DISTRICT-LED PLANNING AND IMPLEMENTATION

When RING began as a USAID-managed G2G initiative in 2012, USAID/Ghana provided direct funding to 10 districts as well as the NRCC. In 2014, USAID contracted GC to implement a technical assistance project to support seven additional districts through subcontracts to build their capacity to manage direct funding. One of the original 10 districts dropped to subcontract in 2015.³⁸ In 2016, five of the eight subcontracted districts transitioned to direct G2G funding. Currently, 16 of 17 districts have attained G2G status.

Each year, USAID and NRCC jointly review district financial and technical performance to determine if direct funding will continue. The fact that 16 of 17 districts now access, disburse and monitor funds from USAID for development projects attests to district strengthened capacity to plan and implement development projects, while ensuring accountability within the district assemblies.

³⁸ Chereponi District was a recipient of G2G funds the first year but was moved to subcontract status due to weak performance.

In line with the 2016 Local Governance Act, empowering the Office of the District Assembly to produce annual plans and budgets and to oversee district departments and agencies carrying out those plans,³⁹ RING provides technical assistance to strengthen the financial accountability of the district assemblies through system strengthening processes and training, working directly with the MMDAs. RING provides technical support through the following main interventions:

- Public financial management (PFM) risk mitigation in G2G districts;
- PFM risk mitigation in subcontracted districts;
- Community engagement;
- District substructure strengthening;
- Collaborative planning and budget meetings; and
- Capacity building in monitoring and evaluation.

“RING is a very good concept. ... How it is bringing all key sectors together is something that any similar project coming to the district should be looking at. I have never seen a project where the critical sectors of the district are being tackled. Similar projects that are to come should adopt that structure so that we can have a holistic approach so far as the development of the district is concerned.” (KII, Gushegu)

The evaluation identified five key contributions to strengthened district-led planning and implementation that were achieved through RING technical assistance and USAID direct G2G funding: 1) coordinated planning to address development issues; 2) public financial management and accountability; 3) strengthened subdistrict management and consultation structures; 4) district support for activity implementation; and 5) monitoring and supportive supervision to strengthen results. Each of these contributions is described below.

I. COORDINATED, MULTISECTORAL APPROACH TO TACKLE DEVELOPMENT ISSUES

One of the most important contributions to the district-led approach was RING’s focus on bringing together district technical departments to share their annual work plans and work together in implementing an effective multi-sectoral approach to tackle development issues, including malnutrition. This allows for a more inclusive planning process, which has contributed substantively to the overall improvements at the district level.⁴⁰

“A good practice is the way they [RING] have been able to bring together the various departments in the district to work together in the interest of the people, which has helped the assembly actualize its oversight responsibilities over these departments. This has given true meaning to the local governance system.” (District-level KII, Karaga)

“The project has also helped to ensure participatory planning in the district, as all the implementing agencies come together to finalize and put together our annual work plans. Before the RING project, the various departments did their own separate plans, but now we all come together to plan for our activities under the project. (KII, RPCU)

³⁹ Local Governance Act, 2016 Act 936, 122.

⁴⁰ While RING achieved considerable success, the midterm evaluation raised concerns for the sustainability of the coordination process, as it is not part of the GoG technical departments’ core mandates and could phase out over time if it is not properly inculcated within the spirit of the Assembly.

2. PUBLIC FINANCIAL MANAGEMENT (PFM) AND ACCOUNTABILITY

In addition to participatory planning, a critical contribution of district-led planning and implementation is strengthening the weak PFM accountability processes within the districts and NRCC structures. Through pre-award assessments using the PFM Risk Mitigation Framework, USAID worked with the districts to identify risks and gaps, develop risk mitigation plans and adopt measures to address these risks. Through this effort capacity of staff was built at the district and regional level. Key issues identified within MMDA and districts were challenges with fixed asset management, lack of proper documentation, problems in budget and budgeting control, lack of procurement and internal audit officers leading to procurement issues, challenges with retirements of funds, lack of ICT plans, poor report writing, lack of participatory planning, opening of bank accounts without recourse to controller and accountant general, and staff absenteeism. These issues have been addressed through ongoing technical support. Table 18 summarizes feedback from district officials regarding achievements and lessons learned.

TABLE 18: ISSUES IDENTIFIED, AND MITIGATION MEASURES ADOPTED (FINANCIAL AND ACCOUNTING)

ISSUES IDENTIFIED	MEASURES ADOPTED	EFFECTS OF RISK MITIGATION MEASURES	FEEDBACK ON LESSONS LEARNED
Poor fixed asset management	• Staff were trained in asset management. • Maintenance schedules were created for motorcycles and vehicles. • Assembly assets are documented using a standardized template.	The assembly is now able to track the handling of equipment and assets among staff.	<i>Fixed assets require regular maintenance. (KII, Karaga)</i>
Lack of proper documentation	• Staffs were trained in proper documentation. • MMDAs included the construction of ICT training centers in their annual plans.	There is now proper documentation and retrieving information has been made easy.	<i>Proper documentation helps to strengthen the system. (KII, Karaga)</i>
Weak budgeting and budget control	• Composite budgeting was introduced to correct the disjointed budgeting systems. • Staff received training in public finance management.	Budgets are prepared based on real figures. Assemblies do proper market research before budgeting to avoid their budgets being queried.	<i>Compliance with financial management regulations helps improve effectiveness and ensure judicious utilization of available resources. (KII, Karaga)</i>
Lack of procurement and internal audit officers	• Staff was trained on procurement. • A memo is now sent to the budget officer and internal auditor before the Proces Verbal (PV) • MMDAs have requested procurement officers. • An internal control unit pre-audits all USAID/RING vouchers.	Staff training helped reduce procurement breaches. Compliance increased, audit PVs decreased, and internal controls improved.	<i>With proper identification of loopholes, financial management can be improved. (KII, West Gonja)</i>
Challenges with timely expenditure of funds	• Officers were trained and coached on funds retirement and PVs. • Decentralized departments must retire funds before new funds are advanced.	There is now timely expenditure of funds and therefore the assembly is meeting deadlines for reimbursement.	<i>It is good for decentralized departments to liquidate so we know what was spent on an activity. We now meet and review so that at any point in time you know what other departments have done. (KII, East Gonja)</i>

TABLE 18: ISSUES IDENTIFIED, AND MITIGATION MEASURES ADOPTED (FINANCIAL AND ACCOUNTING)

ISSUES IDENTIFIED	MEASURES ADOPTED	EFFECTS OF RISK MITIGATION MEASURES	FEEDBACK ON LESSONS LEARNED
No ICT plan	Staff was trained on ICT and an ICT plan was designed.	Training on ICT helped to sharpen staff's ICT skills.	<i>We have learned about having an ICT plan to improve documentation. (KII, Karaga)</i>
Poor report writing	Staff received training in report writing and meeting deadlines.	There is now improved financial reporting, regulatory compliance and recordkeeping at the assembly.	<i>Having good records and documentation is essential. (KII, West Gonja)</i>
Lack of participatory planning	A training was organized for the technical departments on participatory planning.	There is improved staff capacity. Decentralized departments come together to draw plans for the assembly.	<i>We have learned to communicate often and to respect the process (KII, Karaga)</i>
Bank accounts opened w/o proper authorization	Due processes are now followed in opening accounts for the Assembly, with authorization by controller and accountant general.	The assembly knows all of the accounts they operate with.	<i>We have learned that when the work is done right [away], it relieves future stress. (KII, West Gonja)</i>
Staff Absenteeism	A daily attendance book is validated every month.	Daily attendance and reporting have improved.	<i>It keeps various departments on their toes. (KII, Gushegu Municipal)</i>

3. STRENGTHENED SUBDISTRICT LOCAL GOVERNMENT MANAGEMENT AND CONSULTATION STRUCTURES (AREA/ZONAL/TOWN COUNCILS)

Another contribution of district-led planning and implementation is the strengthening of local government structures at the subdistrict level. Area/zonal councils existed in name only and had rundown offices. RING provided capacity-building and logistical support to make them functional. The GoG invested in the rehabilitation of the buildings, while RING supported district implementation at the zonal and community levels. Area councils in Savelugu, Karaga and Gushegu have been inaugurated. Area councils are now helping the district assembly in revenue generation. NRCC is also conducting a functionality assessment as part of its 2018 work plan. The assembly gives the area councils 25 percent of the revenue they generate to develop their area council.⁴¹

Area councilmembers in all five FGD discussions stressed the RING project's substantial support to area councils through the district, which leads to strengthening subdistrict structures.

"RING has supported the assembly and the zonal councils immensely. RING organized training for all of us on; knowledge of the local governance system, model standing orders/measures, they taught us about everyone's duties and responsibilities in the council, how the area/zonal councils should be constituted, revenue mobilization, training on women leadership. We were also educated on the essence of the zonal councils." (Assembly FGD, Savelugu Municipal Area Council)

Community involvement has also helped improve the local governance system. Communities are now involved in the planning process of the assembly to develop the community action plans (CAPS), which are integrated into

⁴¹ Per GOG regulations, 50 percent of Area Council revenue should be ceded to the collecting A/C by the MMDA, once 100 percent of funds have been given to the MMDA for recording and accounting purposes. However, the A/Cs interviewed reported receiving only 25 percent.

the assembly's main plan. Several Interview respondents recounted the improvements they witnessed at the community level.

“The project has helped to improve community participation in the local governance system through the support for the organization town hall meetings to listen to the concerns of the people for possible solutions. This has helped to take governance to the people and brought about accountability to the people by the assembly.”
(District-level KII, West Gonja)

Interviewees also mentioned that the provision of logistics such as laptops and printers by the RING project helped improve their reporting, recordkeeping and documentation, as well as procure motorbikes for monitoring activities.

As one district-level respondent from West Gonja expressed, “Involving the people in the governance process helps to improve participation and ensure a sense of ownership of projects at the community level.” Most district respondents reported positive outcomes from the more inclusive approach, which helps create a more holistic plan, focusing on the specific needs of the community and at times later mitigating friction between the community and the district over planning priorities. The process helps them recognize that the community members know what they need and can help target programming.

A key improvement in local government consultation practices is the CAP harmonization process. Before districts come out with consolidated assembly plans, the views and priorities of the communities, stakeholders and opinion leaders are reviewed and harmonized into the assembly's plan. District assembly officers train and supervise assembly and area/town/zonal councilors to organize town hall meetings or community meetings to identify their challenges, priorities and needs, which are consolidated into the assembly's medium-term development plans (MTDPs).

The RING project trained area/zonal/town councils in the process of developing CAPs, and the roles and responsibilities of the assembly and the area councils. They were also trained to examine and incorporate issues on agriculture, nutrition and water, sanitation and hygiene into the development of their CAPs. As one district-level KII from West Gonja explained, “*Their eyes were opened on their development needs to help them set their priorities right.*” This training helped build their capacities to organize general assembly meetings with their constituents or community members and lead them to deliberate on issues of development prioritizing nutrition, hygiene, sanitation and agriculture and livelihoods, as their basic needs in ensuring development. Area councilors confirm that the assemblies are now more aware of the needs of the communities and communities are more conscious of their responsibility for decisions affecting their daily lives.

Through RING support, the assembly also provided area/zonal/town councils with a template used in the development of CAPs. The template is structured to capture issues of sanitation and hygiene, nutrition, agriculture and livelihood, beyond the traditional infrastructure needs.

“I have gained knowledge on how to organize the community members to deliberate and decide on issues affecting the community. After this, we then choose the most pressing issue among the lots by voting, using the majority rule system. An example is the way we are now able to collaborate with chiefs to make that happen. We had a meeting with them and discussed our priorities on water, sanitation, and agriculture.” (Assembly FGD, Karaga Area Councilors)

4. DISTRICT CONTRIBUTION TO INTERVENTION IMPLEMENTATION AND IMPROVED HEALTH OUTCOMES IN TARGETED AREAS

As mentioned, one critical contribution of district-led planning is the joint planning among departments and agencies at the district level. This process has led to efforts for integrated implementation of development activities.

As a health worker in West Gonja District explained, food demonstration activities usually involve teamwork between the Ministry of Agriculture and the DHMT to help beneficiaries consume or utilize what they cultivate under the RING project.

“Usually we go to the selected communities, organize the women and use the farm produce that we promote under RING. For instance, [in] soybean production, after production, we take some samples of the soybean and we process it into soya milk, we train them on the soymilk production, kebab production and the incorporation of the soy flour into other dishes.” (District-level KII, West Gonja)

Before the district assemblies went into the communities to address the challenges in agriculture and livelihood, USAID and GC worked to ensure that staff at the district level were adequately prepared through proper planning and capacity building in new agricultural practices and methods, and on livelihood empowerment concepts. In that planning and budgeting process, district officials were trained to consider all aspects of successful intervention implementation, e.g., accessing tractor services, obtaining improved seed varieties and identifying storage equipment and pickaxes and tarpaulins for threshing to avoid post-harvest losses. With the small ruminants, proper implementation required procurement of medication and proper quarantine management before distributing the animals.

For the leafy green vegetable intervention, which takes place in the dry season, districts had to procure drip irrigation equipment and train beneficiaries to irrigate effectively. RING also supported districts in training district officers to build capacity in implementing VSLAs, which have been hugely successful and useful for mobilizing resources at the community level within vulnerable groups, particularly women. As a result, 3,142 active VSLA groups have formed in 17 districts with a total membership of 85,202.⁴² Livelihood interventions such as MTMSG, green leafy vegetables cultivation, OFSP and small ruminants are implemented through the VSLA to ensure acceptance and good participation from community members.

Another significant contribution of district-led planning and implementation has been the diversification of household diet through a deliberate effort to introduce diverse foods such as soybeans, OFSP, leafy green vegetables and others. Increased capacity of district staff enhanced their ability to provide support to targeted households in the adoption of better nutrition practices. Through the food demonstrations organized by the DHMTs and the Agriculture Department, vulnerable women learned and adopted quality nutrition behaviors. A variety of activities drove this behavior change. For example, mothers learned healthy feeding practices through community health workers

“IYCF practices among mothers have improved as a result of increased nutrition knowledge which is due to the capacity building given to health staff and community members to be able to counsel the client.” (District-level KII, Savelugu Municipal Assembly)

RING staff stressed the serious impact of high district staff attrition, due especially to transfers on the nutrition component. Districts regularly lose their skilled and trained staff to other non-RING districts, making it difficult to deliver quality nutrition interventions, which affects district nutrition results. RING staff felt that a mechanism to ensure regular on-the-job training is required to keep health worker skills levels at par.

The knowledge and skills acquired by the water and sanitation management teams, established in the communities, have helped to increase the adoption of positive sanitation and hygiene behaviors among target households. According to RING monitoring data, as of September 2018, 559 boreholes/mechanized systems have been repaired and 112,494 people have gained access to basic sanitation services. More than 14,400 latrines have been constructed and handwashing stations, called tippy taps, have increased throughout the targeted communities.

⁴² RING Annual Report FY 2018 Indicator Performance Tracking Table.

W4H also indicate that in their intervention area, 111,744 people have gained access to basic sanitation through the construction of 13,968 latrines

“In the area of WASH, there is improved sanitation and hygiene in the communities with the construction of more household latrines. Through the CLTS, the communities are cleaner now, and most of them have stopped the open defecation.” (District-level KII, Gushegu)

While district support during implementation was critical to these achievements, monitoring at the community level must be sustained to ensure that communities remain ODF. FGD and KIIs with beneficiaries and district officials point to the fact that some communities relapse on WASH interventions due to not getting the necessary reminders, monitoring and follow up.

5. ENHANCED MONITORING, EVALUATION AND SUPPORTIVE SUPERVISION

The RING project worked with the region, districts and departments to create M&E tools that focus on supportive supervision and coaching. Most of the district-level respondents attributed their enhanced capabilities in conducting monitoring and supportive supervision to the capacity-building training from RING and the provision of logistics to facilitate their movements to the field.

The districts have monitoring teams that supervise the M&E activities of decentralized departments, while the district M&E teams are assessed and supervised by the NRCC M&E teams. District officers believe they have been able to carry out the effective implementation of the RING interventions because of the culture of monitoring and supportive supervision approach fostered by RING. A respondent shared that with monitoring, they realized the kind of urgency RING had in achieving targets and how they should contribute to achieving those targets. However, some respondents did mention the challenge of sustaining monitoring due to a lack of motorbikes and fuel to conduct field visits.

“The capacity building received from the RING project has also helped staff to have improved knowledge and skills to conduct better quality monitoring of activity implementation than before. The frequency of monitoring by staff of the department has increased significantly due to the provision of the motorbikes and fuel for field visits. We have become more mobile than before. (District-level KII, East Gonja)

Changes in outcomes are tracked through monitoring and supportive supervision visits, and findings are reported in the weekly, monthly, quarterly, mid-year and annual reports. In addition, yearly reviews check and monitor issues on the ground. Interviewees considered the improvement of the quality and timeliness of supportive supervision visits from the Regional Health Directorate to the districts, and the districts to the subdistrict health facilities, as critical to achieving results, particularly for nutrition-specific interventions. Logistical support also contributed to the frequency of the monitoring activities.

CHALLENGES TO DISTRICT-LED PLANNING AND IMPLEMENTATION

In addition to the strengths in district-led planning and implementation, as would be expected, there are also challenges that still exist. This section discusses the different challenges raised during the KIIs and FGDs, as well as recommendations to help address these challenges and some lessons learned. The evaluation team organized these challenges under 3 main themes: 1) Monitoring, Evaluation and supportive supervision, 2) G2G financial reporting, liquidation and disbursement and; 3) RING implementation challenges and lessons learned.

Although the culture of M&E has been strengthened, there still remains some logistical challenges as well as systematic challenges. Table 19 shows the M&E and SS challenges that came up during the interviews with respondents and solutions they recommended to mitigate the issue.

TABLE 19: CHALLENGES OF MONITORING, EVALUATION AND SUPPORTIVE SUPERVISION (SS)

CHALLENGES	RECOMMENDATIONS TO MINIMIZE CHALLENGES
Engaging subdistrict officers in monitoring and SS of activities: Local government officers view the primary beneficiaries as the people on the ground.	Subdistrict community-level officers should be engaged in the monitoring of activities to enhance monitoring. RING should strengthen monitoring at the community level.
Lack of a centralized database: There is no centralized database for all 17 MMDAs to complement monitoring and SS datasets.	A centralized database system of all interventions across departments will help consolidate data for evaluation and data utilization (RING is working with GoG on this system.)
Inadequate logistics to carry out M&E in some communities: Especially during the rainy season, when most roads are inaccessible for motorbikes.	Procurement of additional logistics would strengthen monitoring activities.
Frequent staff transfers: Constant staff transfers leaves the districts with insufficient personnel to undertake monitoring activities. New staff usually have no knowledge of RING activities, which makes it difficult to use them for monitoring and SS activities.	• The Local Government Department should reduce the frequency with which officers are transferred. • Training strategies should address the challenge of having to train new staff on the job.
Delay in the release of funds affects monitoring of activities: Lack of funds for fuel due to delays in funds release for monitoring and SS leads to postponement of planned monitoring activities.	Timely release of funds should be a priority.
Lack of systems to ensure accountability: Putting large amounts of funds into an assembly where the structures for accountability are weak can create problems with fraud or corruption.	Use a case study sensitization approach to demonstrate negative effects of inadequate accountability on the entire community.
Prescriptive Intervention Menus: RING's menu of interventions, hinders the selection of interventions in line with district and community needs.	Districts and communities should decide on which interventions should be implemented in their communities, since they have a better understanding of what is needed and would be effective for the households.
Improved data analysis for decision-making: Simply writing down monitoring observations and sharing them with regional counterparts may satisfy reporting requirements but does not suffice for evidence-based decision-making.	Train M&E staff on data analysis for decision-making, working from case studies on results and decision options based on evidence.

CHALLENGES WITH G2G FINANCIAL REPORTING, LIQUIDATION AND DISBURSEMENT

The evaluation reviewed how G2G funds are financially reported, liquidated and disbursed to determine if gaps identified in public financial management have been addressed in terms of system strengthening or capacity building. Both RING and the districts reported that the primary challenge to effective intervention implementation was the timely receipt of direct funding from USAID. Some respondents indicated that the district had to wait five to six months before they had funds from USAID to implement activities identified in their work plans, related either to the workload of the staff who review the 16 G2G districts reports before approving or to funds availability from Congress.

These delays affect the timely implementation of the activities, especially for interventions that cannot take place in the rainy season. This delays activity implementation and results in some activities not being carried out at all. Implementation of activities under agriculture and livelihood, nutrition and WASH have all been affected due to delays in the release of funds. Seasonal and ongoing activities, such as CLTS and VSLA monitoring, have suffered. Soybean interventions and sometimes small ruminants were rescheduled to the next year due to missing the right implementation period.

“Funds for the activities should be given out very early because we are almost getting to the end of the third quarter and we haven’t done anything. With CLTS, if we are not able to do it early then we have a challenge because the people will be on their farms by the time we will need them for training and that is why we don’t succeed.” (KII Savelugu Nanton)

“The earliest we have ever gotten money has been in March. Usually, it’s like April/May. We use our entire dry season for the WASH activity implementation. So we’ve never really been able to get a full calendar year for WASH. CLTS prime implementation is from November to May. So when districts aren’t sure when they are going to get their money, in January, February, March, April, they are very hesitant to trigger CLTS in December, because they have to follow up with them. The triggering is useless. It is always something different.” (KII RING)

“The early release of funds for nutritional activities result in better outcomes. For instance we have already planned for activities to be implemented but we are now in September but we haven’t received anything. So where do we start? And we plan our activities according to the season calendar, what do we do now? Now when we get money now where do we start from?” (KII RHD)

Challenges were also reported with the procedure and protocols for the Ghana Integrated Financial Management System (GIFMIS), which delayed disbursement. The system requires municipalities or district assemblies to supply details of suppliers before awarding the contract to them, but most suppliers do not have the needed documentation. The documentation process also requires inputs from the NRCC and the Ministry of Finance which tends to delay implementation. Late finalization of work plans by districts and NRCC also affects the disbursement of funds, since funds are released based on a work plan only.

“And now to get the suppliers detail on the system [GIFMIS] it used to be done only in Accra and you send he details of suppliers for more than 2 months and its never coming. Later they decentralized to only the regional offices controller. So now is Tamale that you will send it to even then, for more than a month now we have sent an information for it to be upload and we are not even getting it” (KII Savelugu Nanton)

“Now worse of all, we are now implementing GIFMIS [Ghana Integrated Financial System] which is a software coming from the minister of finance. ... The difficulty now is that, if the network is not good nothing can be done but that is one. Two, if a director or the finance officer goes on transfer, before they will change the names, it takes two weeks. We were here for two weeks without spending money here because our coordinating director was transferred to Jirapa and that of Jirapa also came here. So we were sitting down before they were now able to change the signatories.” (KII West Gonja)

Table 20 lists the challenges and recommendations received from the NRCC and districts on G2G reporting, financial liquidation and disbursement.

TABLE 20: G2G REPORTING, FINANCIAL LIQUIDATION AND DISBURSEMENT

CHALLENGES	HOW CHALLENGES AFFECTED RESULTS	RECOMMENDATIONS TO MINIMIZE CHALLENGES
Meeting Liquidation Deadlines: Some MMDAs were unable to meet USAID timelines due to either heavy workloads or failure of other departments to submit their reports.	Led to delays in the district's liquidation reports to USAID, which affected release of the next tranche of funds to the districts; this affects activity implementation.	Conduct additional capacity building for MMDAs on liquidation reports.
Delays in the Disbursement of G2G Funds:		
USAID to districts: delays in the release of funds, which tends to affect implementation and retirement of funds.	Affects our targets and project implementation.	There should be consistent timely release of funds. Districts should liquidate their funds on time to ensure timely disbursement of funds from USAID
Districts to departments: failure of departments to liquidate the previous funds received and put in another request, which cannot be approved if the other funds are not liquidated.	This led to delays in the district's submission liquidation reports to USAID, which can also affect their release of funds.	Departments should ensure timely liquidation of funds to qualify for the next report, so they can avoid delay in the release of funds for subsequent activities.

RING IMPLEMENTATION CHALLENGES

Since the RING GC project started in 2014, RING has faced many challenges that are also learning opportunities for future projects. Table 21 discusses some of the main challenges RING faced, along with recommendations to USAID to overcome challenges. Following the table are key lessons learned, as identified by RING.

TABLE 21: MAJOR CHALLENGES OF IMPLEMENTING RING AND RECOMMENDATIONS TO USAID

MAJOR CHALLENGES OF RING	RECOMMENDATIONS TO USAID
Delay in the release of funds for seasonal activities: This challenge is across all G2G districts and the NRCC. Seasonal and ongoing activities, such as CLTS and VSLA monitoring suffered while activity implementation in Agriculture and Livelihood, Nutrition and WASH have all been affected.	Timely release of funds for the appropriate implementation of activities.
Drying up of water bodies: With the leafy green vegetables and other crops, there was not enough water as water bodies dried up, affecting the potential results of the crops both in terms of yield and diversity.	There is a need to influence policy at national level to expand/dredge dug outs in communities. Important to also sensitize communities on human activities on silting up of water bodies

TABLE 21: MAJOR CHALLENGES OF IMPLEMENTING RING AND RECOMMENDATIONS TO USAID

MAJOR CHALLENGES OF RING	RECOMMENDATIONS TO USAID
Challenges with the design: – The RING model where the MMDAs carry out implementation but the IP is accountable for the results (e.g., indicators) is problematic. – Putting large amounts of funding into an assembly where the structures for accountability are weak creates problems. – Strict adherence to the prescribed menu of activities being implemented by RING sometimes restricts innovation, thinking outside the box, use of local knowledge, experience, and other interventions to address objectives of RING.	– The design should hold the MMDA and IP equally responsible for their relevant indicators. – Continue to strengthen accountability structures and process and ensure that funds are adequate to cover a full quarter. Consider lowered ceiling levels for funding over time. Learn from past spending (note: high costs of inputs, such as small ruminants and soybeans/tractor service provision, etc.) – The Menu of activities should serve as a guide and not a prescription for activities that can be implemented. Districts should be allowed to recommend innovative activities that can address the objectives of the project.
Sporadic political interferences: Some district chief executives try to interfere. Implementation is significantly challenged when this happens, and all stakeholders- RING, the district assembly, the NRCC, and USAID have to come together to find ways to address interference from political leadership.	RING should attempt to find a way of indemnifying itself from political interferences.
Engaging regional officers in district-level efforts: Engaging the NRCC to become more active in district-level support that RING offers has been a challenge.	RING should train the regional team to do the work that they want them to do, rather than having a consultant provide directives to NRCC.
Roles and responsibilities: Regular issues due to misunderstandings of roles, especially between RING and the NRCC	Future projects should clearly define and communicate the roles and responsibilities between the IP and the government.

RING IMPLEMENTATION LESSONS LEARNED

During interviews with the RING staff, the following key lessons learned were shared:

- Capacity building is critical to change or create systems.
- Existing systems should be leveraged for sustainability and to take activities to scale.
- G2G requires a lower level of project human resources compared to a project not engaging the government. Having the district itself take initiative creates ownership and reduces the level of support required from the project team.
- Commitment from the leadership of the district assemblies leads to positive results and sustainability. Those who have strong leadership and commitment have had more ODF certifications, monitoring support for technical teams and overall stronger results.
- Skills-based training for volunteers helps achieve results because the district assembly's staff are not always in the communities. In their absence, the volunteers are able to give technical support to households which speeds up implementation and is more cost effective.

MMDAs OVERALL CONTRIBUTIONS TO OUTCOMES

BEFORE THE RING PROJECT. The mandate of the MMDAs is to ensure that development through good governance extends to all of their constituents, even those in the most remote parts of their municipalities or

districts. They have tried to accomplish this over the years, but it has been done in pieces—largely due to a lack of adequate financial resources. Although the local government has pragmatic plans whose timely rollout could change the livelihoods of its constituents, these plans were not implemented. The MMDAs’ response to community priorities for improved nutrition, agriculture and livelihood was slow and inefficient. A respondent at the Gushegu Municipal explained: *“It was difficult because there was no funding, yet we drew plans. The common fund was not reliable, you could budget, but the money received will be insufficient to meet planned activities.”*

Another respondent at the Karaga District also stressed the MMDAs’ inability to respond to the priorities of the people due to lack of funds. In some instances, the assemblies tried to link their constituents to financial institutions to encourage saving to improve their livelihoods, but this was of limited use; under RING, there are many more households and communities involved in VSLA. It was also noted that the MMDAs had no specific plans to address community priorities in nutrition, agriculture and livelihood. A respondent at the Savelugu Municipal Assembly mentioned: *“Before RING came in, there wouldn’t have been a focus on these areas. It was general, there was no budget set aside for nutrition activities and given to health, and when you go to Agric too there was no direct support from the assembly to Agric department to implement livelihood programs”*

AFTER THE RING PROJECT Assemblies are able to plan and implement more activities to respond to communities’ needs in nutrition, agriculture and livelihood. The situation has changed because RING places a high premium on these improvements in the lives of the poor and vulnerable women and children in the target communities.

“With the RING support, the assembly is now able to support the Health Administration to plan and implement nutrition activities such as the MTMSG and FTFSG to help improve the nutrition of the people. With RING support, the assembly is also now able to support the Agric. office to help farmers to cultivate soya beans and OFSP as well as rear small ruminants using the right farming methods to help improve farming practices to increase food production in the communities. With the RING support, the assembly is also now able to support the Agric. office to implement the VSLA in communities to help improve the economic and livelihood of the people in the community.” (District-level KII, Karaga)

Based on information from the interviews, Table 22 outlines the overall contributions that MMDAs have had on the outcomes in different focus areas.

TABLE 22: SUMMARY OF MAJOR CONTRIBUTIONS FROM MMDAS TO ACHIEVING EXPECTED OUTCOMES		
AREA/ SECTOR	MAJOR CONTRIBUTIONS FROM MMDAs	OUTCOMES
Agriculture and Livelihood	District agriculture and extension officers trained and educated farmers in modern farming practices and livestock farming and carried out the implementation of interventions in agriculture and livelihood.	- Cultivation of OFSP, soybeans, leafy green vegetables, groundnut and cowpea - Rearing of small ruminants and poultry - Improved food security during the peak of the lean season - Improved income opportunities for vulnerable women through the VSLA and sale of excess farm produce

TABLE 22: SUMMARY OF MAJOR CONTRIBUTIONS FROM MMDAS TO ACHIEVING EXPECTED OUTCOMES

AREA/ SECTOR	MAJOR CONTRIBUTIONS FROM MMDAs	OUTCOMES
Nutrition	DHMTs trained strategic health staff, including community health nurses (CHNs) and community health volunteers (CHVs), in various nutrition commodities, such as IYCF, CMAM, ENA and anemia prevention and management.	- Increased adoption of improved nutrition behaviors among target households through the MTMSGs & FTFSGs and cooking demonstrations - Enhanced regular community outreach services - Improved monitoring and supportive supervision of nutrition activities - Improved MAD and MMF within households - High CMAM cure rates
WASH	District environmental health officers (DEHAs) triggered communities and trained natural leaders in CLTS and water and sanitation management teams (WSMTs).	- Increased adoption of positive sanitation and hygiene behaviors among target households - Construction of household latrines and handwashing stations - Repairs of broken boreholes - A lot of targeted communities achieving ODF status - Construction of institutional latrines and handwashing stations - Repairs and installation of institutional rainwater-harvesting facilities
Good Governance	District planning and coordinating unit (DPCU) officers trained and strengthened area/zonal/town councilors in good governance.	- Improved governance at the Area/Zonal/Town Councils - Revenue generation at the sub district levels - Rehabilitated area/zonal/town council offices
Monitoring, Evaluation and Supportive Supervision	NRCC and MMDAs trained to implement partners in M&E systems and data collection tools with a focus on supportive supervision and coaching. NRCC and MMDAs conducted joint monitoring with GC RING partners on various activities.	- Enhanced capabilities in conducting monitoring and supportive supervision of outcomes
CAPs Harmonization Process	District assembly officers trained and supervised assembly and area/town/zonal councilors to organize town community meetings, during which they supported the communities to identify their challenges and priorities/needs into CAPs, which were harmonized into assemblies general or MTDPs.	- Improvement of water, hygiene and sanitation practices in the communities - Improvement of agriculture, nutrition and good livelihood practices in the communities
Risk Mitigation	MMDAs identified measures to mitigate the risks identified during USAID's assessment of the districts.	- Proper documentation is now in place - Budgets are prepared based on real figures - Improved staff capacity; decentralized departments come together to draw plans for the assembly - Daily attendance and reporting time to work has improved

TABLE 22: SUMMARY OF MAJOR CONTRIBUTIONS FROM MMDAS TO ACHIEVING EXPECTED OUTCOMES

AREA/ SECTOR	MAJOR CONTRIBUTIONS FROM MMDAs	OUTCOMES
G2G Financial Reporting, Liquidation and Disbursement	Under the G2G module, MMDAs received support to address identified gaps in the area of PFM, procurement, financial reporting, liquidation and disbursement.	- MMDAs were able to address these gaps, leading to most of them attaining G2G
Partnership	MMDAs maintained a cordial partnership between their districts and USAID/GC RING.	- Successful implementation of activities

EVALUATION QUESTION 3 CONCLUSIONS

- RING strengthened district planning and implementation through training, technical support, new processes and direct work with MMDAs, notably in financial management, subdistrict governance and participatory planning. This has contributed to the improved implementation of the agricultural, WASH and nutrition interventions, which have supported improvements in nutritional behaviors.
- Coordination among officers at the district level facilitated the district's ability to carry out a multi-sectoral approach to nutrition and poverty, but five years is too short to expect significant results in terms of challenging nutrition and WASH outcomes of interest; more time and effort are required via diverse interventions to sustain improvements in district-led planning.
- Process improvements and adoption of a culture of monitoring and supportive supervision strengthened district monitoring and planning, but additional SS is needed to strengthen monitoring at the community level. Challenges remain in monitoring at the community level, maintaining a centralized database, logistics and staff turnover.
- Subdistricts and health facilities are on the ground in communities but have limited involvement in monitoring the RING nutrition interventions (e.g., trainings and MTMSG). This could impact the long-term sustainability of these interventions due to lack of ownership.
- Lack of timely receipt of direct funding from USAID affected activity implementations, especially interventions that cannot be implemented in the rainy season. Some respondents indicated that the district had to wait five to six months for funds from USAID to implement planned activities.
- Assembly delays in releasing funds to the implementing agencies in some districts prevented them from carrying out some activities, leading to the return of significant unexpended funds to USAID in FY17.
- The G2G program and specifically the District-level MOUs did not clearly define district responsibility for achieving project results through USAID direct funding. RING was accountable for achieving expected results, although its role was limited to technical assistance.
- Interventions are not demand-driven at the beneficiary level which affects sustainability, especially in households that would have preferred another intervention type to what is being offered. Involving community members in the decision making to target interventions could help with ownership and make sure the key challenges are being addressed in the community.

RECOMMENDATIONS

Based on the findings and conclusions from this evaluation and on input from regional and district stakeholders, future G2G nutrition and poverty reduction programming should consider the following recommendations:

OVERALL PROGRAMMING RECOMMENDATIONS

1. Programming aimed at addressing poverty and improving the nutrition of households should provide (or leverage existing systems like LEAP) monetary support to the most vulnerable households, in addition to interventions. With income being the most significant barrier to investment in agricultural pursuits and obtaining quality food, monetary support (e.g., for school fees or food) would provide households with critical resources to improve their nutrition, especially during the lean season, while they work to build skills to become economically independent.
2. Poverty alleviation programming should reflect on best practices in terms of adjusting for the effects of climate change (e.g., rain patterns) given the significant impact of extreme weather on farmers' income. With farming being the main occupation in the Northern Region, without considering these overarching issues and their effect on crops, interventions will be less effective and unsustainable. Other environmental issues should also be considered, including, when relevant, deforestation and bush burning.
3. USAID nutrition and poverty programs should include a detailed M&E plan that ensures effective monitoring from project inception and intervention-specific impact evaluations to measure contributions and effects of interventions and to contribute to learning and adaptive management. Impact evaluation design should be completed before intervention implementation.
4. Annual intervention-specific rapid assessments should be organized to provide improved understanding of intervention contributions to outcomes. Feedback from these rapid assessments should serve as the basis for annual "pause and reflect" reviews to allow for learning and adaptations in implementation based on experience and data. These reviews should include representatives from the implementing partners, USAID, NRCC, GHS, and the districts.
5. Nutrition and poverty reduction programming should be integrated and implemented in a coordinated manner in targeted communities to create sustainable change: communities require support in all three major programming areas (WASH, nutrition education and livelihoods) rather than receiving only one intervention.
6. Nutrition programming at the community level should use an integrated approach based on lessons learned from successful activities such as:
 - Food demonstration sessions using locally available and seasonally available foods.
 - Improved adolescent health services at all levels as a way of strengthening the nutritional status of women of reproductive age and their children under 5 years.
 - IYCF counseling as a strategy to improve the nutrition status of children younger than 2 years.
 - Integration of men and key community leaders as advocates for improved nutrition behaviors and expansion of FTFSGs to increase male involvement in nutrition issues.
 - Strengthening the capacity of health staffs, CHVs and key community stakeholders to initiate and sustain community-driven food accessibility interventions.

7. To increase sustainability of WASH interventions, programming should scale-up CLTS in all communities and focus on creating and strengthening CLTS networks within communities, with members drawn from traditional and religious leaders, community and natural leaders, health workers, area mechanics, CHCs and WSMTs. Members of these networks should be trained. Area mechanics should be linked to specific communities.
8. MMDAs should gazette, monitor and enforce sanitation by-laws to accelerate the gains made in community sanitation.
9. WASH programming should help create mechanisms to increase community access to funds for household sanitation, such as sanitation revolving or social funds to support households in acquiring and maintaining sanitation facilities (e.g., latrines) and linkages between households and private suppliers to facilitate barter of farm produce for building materials or other supplies.
10. ODF communities should be recognized on the regional and district level for their achievements.
11. Livelihood programming should focus on intensifying dry season farming, post-harvest management of food, and means of diversifying income or adding value to existing production. Programs should explore creative means to involve the private sector in supporting sustainable livelihood activities, through supply contracts, barter or VSLA support for required livelihoods-related procurements.

USAID PROGRAMMING RECOMMENDATIONS (G2G)

12. Programming targeting sustainable improvements in nutrition and poverty alleviation in highly vulnerable populations should be structured for a 10-year window. Five years is too short to see progress toward the goal (e.g., considerable reduction in stunting) and to see a substantial, sustainable change in district capacity and systems. The time required for startup (e.g., creating relationships and systems, training, etc.) and closeout (e.g., handover of plans) shortens the actual time of project implementation by up to one and a half to two years. Alternatively, an overlapping period between successive projects could help to ensure a smooth handover without a time gap.
13. G2G programs should clearly define responsibilities for project results between districts and the implementing partner. Each party should be assigned specific results and related targets. Districts should be held accountable for specific time-bound results indicators (e.g., number of ODF communities) which should be included in their contracts with USAID and tied to payments. TA should be responsible for services that support achieving indicator targets. This process will increase local ownership and relieve tensions between TA and districts.
14. G2G programs should continue to use a phased approach such as RING to transition districts to direct funding, with a first phase of technical assistance to build capacity and systems before transitioning to direct funding.
15. G2G projects should include a progress review and funds distribution process that ensures that work plans are funded in a timely fashion, especially for seasonal activities, to avoid impediments to successful implementation of the community interventions.
16. USAID G2G funding agreements should be determined based on a joint consultative process that identifies district-level tasks and realistic levels of funding, rather than planning with a pre-given pre-determined amount.

17. Project design should support a flexible approach to allow communities to implement relevant activities identified in their CAPs, as opposed to being limited to pre-determined options.
18. M&E systems for districts should be more simple but robust. Districts should be required to report on indicators to gauge progress towards results. Technical assistance should provide data quality assessments of district data and capacity building to strengthen the M&E unit within the district, as well as capacity building for the RPCU to enhance its ability to monitor and assist districts.

RECOMMENDATIONS FOR THE DISTRICTS AND GHS

19. Due to limited funding, districts and communities should prioritize selection of the more sustainable and lower-cost interventions, such as VSLA, CLTS and crops like OFSP, to ensure continued implementation after the end of donor support.
20. Districts should re-activate Water Sanitation Management Teams (WSMTs), identify, train and align area mechanics and latrine artisans to communities to ensure the maintenance of water and sanitation facilities.
21. Community-level health interventions should be carried out and monitored by sub-district, health center and CHPS staff, as appropriate, instead of centralizing implementation at the DHMT level; this will foster ownership and build sustainable community-level relationships.
22. The GHS Regional Director of Health Services should require that districts prioritize nutrition-specific activities and should take the lead in leveraging resources across donors and stakeholders working to improve nutrition.

ANNEXES

ANNEX A: PROJECT DESCRIPTIONS

Project: Resiliency in Northern Ghana (RING)

Duration: 2014-2019

Implementing Partners: Northern Regional Coordinating Council (NRCC), 17 District Assemblies, Global Communities

Budget: \$60 million

Award Number: AID-641-C-14-00002

The RING Project is designed to address the dual problems of poverty and malnutrition through three complementary and integrated components: (1) increasing access and consumption of diverse quality food by addressing barriers related to income variability and constrained household resources (activities include promoting savings and small-scale agriculture); (2) improving behaviors related to nutrition and water, sanitation, and hygiene; (3) strengthening local support networks to address the ongoing nutrition and livelihoods needs of vulnerable households.

Through these interventions, RING aims to improve the lives of women by increasing their control over household income, increasing social capital, and thereby creating more social safety nets for them and their families. By working directly with District Assemblies, RING promotes the strengthening of local governance, ensuring an enabling environment for enhanced nutrition and livelihoods.

RING is currently being implemented in 17 districts in the Northern Region. USAID currently provides direct funding [via G2G support mechanism] and technical support to 9 out of the 17 RING districts and the NRCC. An additional 8 districts receive funding by subcontract through Global Communities who also provides overall technical assistance. The objective of the RING project is to improve the livelihoods and nutritional status of vulnerable households in selected districts of the Northern Region, with an emphasis on women of reproductive age and children under five years. RING is designed to contribute to the following USAID/Ghana Feed the Future goals:

- 25% decrease in stunting among children under five;
- 20% decrease in underweight among children under five;
- 20% decrease in wasting among children under five;
- 20% decrease in anemia among children under five;

Additionally, RING will contribute to 80% of targeted vulnerable households having increased annual incomes by at least 100%

Project: Strengthening Partnerships, Results, and Innovations in Nutrition Globally (SPRING)

Duration: 2014-2017

Implementing Partners: JSI Research and Training Institute (Prime), Helen Keller International, The Manoff Group, Save the Children, International Food Policy Research Institute

Award Number: AID-OAA-A-11-00031

The objective of the SPRING project is to reduce stunting and anemia among children under in Northern and Upper East regions. The project is organized around five objectives:

1. Improve delivery of high impact nutrition services;
2. Increase demand for high impact nutrition practices and services;
3. Improve enabling environment for the adoption and delivery of high impact nutrition practices and services;
4. Improve evidence base regarding delivery of selected high impact interventions;
5. Enhance policy environment for delivery of state-of-the-art nutrition interventions.

SPRING/Ghana is focused on increasing the uptake of 20 high-impact nutrition interventions in 15 districts – 4 in Upper East and 11 in Northern Regions of Ghana. Interventions uses a first 1,000 days household approach, targeting the window of opportunity within households with a pregnant woman or a child younger than 2 years to contribute to achieving Feed the Future's goal to decrease stunting by 25 percent.

Nutrition: Infant & Young Child Feeding focused on early initiation of breastfeeding (BF); exclusive BF through 6 months; continued BF for two years; timely, appropriate complementary feeding- including orange-flesh sweet potatoes; and supportive supervision and quality improvement focused on evidenced based linkages and engagement between the formal health sector and community committees. Activities target community health staff and volunteers to become active agents of change.

WASH 1000: Improve the frequency of four household WASH behaviors that contribute to reducing diarrhea and environmental enteropathy, thereby reducing incidences of stunting and anemia.

Agriculture (Aflatoxin): Contributing to the reduction of aflatoxin levels in groundnuts will lead to better nutrition outcomes. Employing the farmer field school training methodology, SPRING/Ghana is building farmers' capacities (especially women's) on pre-harvest agronomic practices and post-harvest handling, and using aflatoxin test kits to test groundnuts and maize from other project aggregators operating within the ZOI.

Social & Behavioral Change Communication (SBCC): SPRING/Ghana uses mass media campaigns, interpersonal communication, and engagement through community- based platforms to address knowledge gaps and promote healthcare seeking attitudes

Project: USAID Water, Sanitation and Hygiene for Health (WASH for Health)

Duration: 2015 – 2020

Implementing Partners: Global Communities, Ministry of Water Resources, Works and Housing, Ministry of Local Government and Rural Development, Ghana Urban Water Company, Community Water and Sanitation Agency, MMDAs

Budget: \$8,653,500

Award Number: AID-641-A-15-00005

The five-year USAID Water, Sanitation and Hygiene for Health (WASH for Health) project advances USAID objectives in health and education while pursuing priorities of the Senator Paul Simon Water for the Poor Act of 2005: equitable and sustainable access to safe drinking water, sanitation and better hygiene. Sources of safe drinking water and handwashing and sanitation facilities are provided to vulnerable neighborhoods and selected

schools and clinics. In addition to infrastructure, the program provides information through media, drama, community associations and women's groups which illustrate the safe handling of water and the use of latrines for healthier families and communities. As a key factor in sustainability, WASH for Health also enables communities to enhance and protect their WASH infrastructure, including rehabilitation and drilling of boreholes and education on rainwater collection. Additionally, governance structures ensure the provision and management of rural services continue to strengthen. Using a Community Led Total Sanitation approach, the project will facilitate the construction of household sanitation facilities through improved market based financial approaches. WASH activities benefit from several resources leveraging through Global Development Alliances, including the Coca-Cola Company and Rotary International. The program is targeted at five regions: Greater Accra, Central, Volta Western and Northern.

Project: Livelihood Empowerment Against Poverty (LEAP) 1,000

Duration: 2014-Current

Implementing Partners: Ministry of Gender, Children & Social Protection, DfID, UNICEF/Ghana

The overall objective of LEAP is that children in poor households in selected districts in the most deprived regions of the North of Ghana grow up free from stunting. This will be achieved through facilitated delivery of regular cash transfer to selected poor households; Strengthened delivery of the LEAP program across the country; Increased economic growth.

Activities under LEAP 1000 include; Targeting of Households with Pregnant Women and Children under 12 Months and cash transfers to these households; Training to women in Village Savings & Loans Associations to provide members with numeracy, financial literacy, and household budgeting knowledge; E-Payments to ensure that the national e-payment system is up and running; Design and implementation of a communication and information strategy to accompany the project's roll-out; Support for LEAP Expansion; Monitoring, Evaluation and Research

ANNEX B: EVALUATION STATEMENT OF WORK

NUTRITION AND POVERTY REDUCTION IN NORTHERN GHANA EVALUATION

The purpose of this study is to inform future programming decisions through the evaluation of the effectiveness of USAID and its partners' interventions to improve nutrition behaviors and increase household resiliency in Northern Ghana.

SPECIFIC OBJECTIVES

This evaluation will seek to address the following key questions:

1. Does increasing household assets (including, but not limited to, latrines, potable water and handwashing with soap) and access to quality foods and nutrition and hygiene education (via RING, LEAP and SPRING) result in improved nutritional status of women and young children in Northern Ghana?
 - a. What is the specific impact of access to latrines and available potable water sources, such as boreholes?
2. What effect has RING had on improving the resilience of household consumption to economic shocks?
 - a. Will any RING interventions sustain after RING financial support ceases?
3. What is the contribution of district-led planning and implementation in achieving outcomes of interest?
 - a. What lessons can be learned about empowering and engaging local government in future similar efforts?

BACKGROUND

For the last three years, USAID/Ghana has funded programs in the Northern Region to help address the challenges of poverty, poor infrastructure, persistent malnutrition rates and low access to education and health care. Although Ghana has achieved an overall reduction in the poverty rate over the last 10 years from 52% to 28%, poverty rates in the northern part of the country are still nearly twice that of the south. They will most likely remain high as the income gap between the north and the south has widened further. The Northern Region's greater rates of underweight and wasting in children are closely linked to food insecurity. Chronic undernutrition in these regions is related to household poverty levels, disease burden, inadequate sanitation facilities and poor infant-feeding practices.⁴³ The theory of change of these programs is that by increasing livelihoods, providing nutrition education to vulnerable women and ensuring access to health care and improved sanitation to communities, households will be more resilient to economic shocks and health outcomes, particularly among women and children under five.

The RING project is one of USAID/Ghana's main awards which works to address the dual issues of extreme poverty and poor nutrition through Government-to-Government agreements at the district level. The SPRING project seeks to strengthen country efforts to scale up high impact nutrition practices and prevent stunting and anemia through its 1,000 Day Household approach, which targets households with pregnant women and children two years or younger, in the three regions of the Feed the Future (FTF) zone of influence. Systems for Health works to reduce underweight, stunting and anemia of women and children through partnership with GHS to strengthen vital health system building blocks to ensure access to, and use of, high quality health services by all. Wash for Health accelerates sustainable improvement in water and sanitation access and hygiene behaviors

⁴³ <https://feedthefuture.gov/country/ghana>

through improved sector governance and private sector engagement, and coordinates with other USAID programs to improve water supply and sanitation in schools and health facilities. USAID has also launched a partnership with UNICEF to scale up the Government's LEAP program, which provides social cash transfers to vulnerable households with an emphasis on women with young children.

These activities together represent an integrated assistance package to improve health and reduce poverty in the Northern Region valued at more than \$130 million. This evaluation will look across the Northern Region to determine the overall results supported by these different interventions to answer the evaluation questions.

DATA SOURCES

The evaluation will rely on both primary and secondary data to answer the evaluation questions. Secondary data sources will also be used for contextual factors and potential confounders to inform analysis and for triangulating conclusions. The study will use the following data sources:

- project data and reports (RING, SPRING, WASH, Systems), including project monitoring data, operational research, baseline, annual/quarterly reports, etc.;
- USAID/GHS baseline and midterm studies;
- LEAP baseline evaluation 2016;
- DHS 2014;
- DHMIS2 data;
- FTF baseline and 2015 update;
- UNICEF MICS, 2011 with new survey to be implemented in 2017
- Evaluate Gender Assessment of RING Interventions 2016;
- other sources identified in the planning phase of the evaluation.

Evaluate is assuming ready access to project-level data and the other data listed above.

METHODOLOGY

Evaluate will use a participatory approach for the evaluation design, involving a wide range of stakeholders in the process, including USAID/Ghana, IPs and key GHS regional and district government partners, which will enhance ownership of evaluation results and enable triangulation of data across a range of stakeholders at district, as well as subdistrict and possibility community, levels.

Evaluate will use a mixed methods approach to the study, involving primary and secondary quantitative and qualitative data to answer the three evaluation questions. The approach will use rigorous methods including, if possible, quasi-experimental designs to thoroughly answer each question.

Differing from an activity-level performance evaluation, this evaluation will examine higher level outcomes across geographic areas where multiple interventions have been implemented by USAID/Ghana and UNICEF. In addition, this evaluation will address three broad and distinct evaluation questions which will consider outcome measures at multiple levels: district/municipal, community, and household and individual, across a range of varying livelihoods and nutrition interventions. Because of the diversity and complexity of the evaluation questions, three different types of data will be collected and analyzed to respond to each question: 1) available secondary data; 2) available performance monitoring data from IPs; and 3) endline quantitative and qualitative data collected by the evaluation team.

A critical first step in the evaluation design is to ensure that the evaluation team has a clear understanding of what primary and secondary data exist, how reliable they are and how they can be utilized to gauge performance across interventions to answer the evaluation questions. In addition, the initial assessment of available data will help determine what data is missing and needs to be collected, as well as what, if any, quasi-experimental methods are feasible to use for this evaluation.

Determining a baseline will be key to using a quasi-experimental design since this evaluation is post-project design with interventions already being implemented or, in certain cases, ended. Determining if a credible control group can be identified will depend on data available, most likely from existing population-based survey data (e.g., FTF, DHS or MICS), that will serve to identify districts or communities outside the intervention areas which had the same variables before the intervention was applied.

After contract award, Evaluate will meet first with HPNO to finalize the research design, indicators and work plan, and to confirm all specific processes of the evaluation, ensuring the most appropriate cost effective methods are used. Evaluate will use a range of evaluation planning tools, including an evaluation questions matrix (Getting to Answers) that identifies data sources and recommended data collection methods to answer each of the evaluation questions. Part of this process will also include working with HPNO to refine the existing evaluation questions to narrow their scope and to ensure that they are answerable in the context of program interventions.

Evaluate's approach to the evaluation includes four steps: 1) secondary data assessment; 2) statistical methodology; 3) primary data collection; and 4) data analysis.

SECONDARY DATA ASSESSMENT. To effectively address the three research questions, the evaluation team will first collect and assess existing data, including but not limited to PBS datasets (e.g., DHS, FTF, etc.), project monitoring data and/or baselines, USAID/Ghana HPNO health services baseline and midline for Northern Region, and GHS DHIMS2 data. The secondary data collected will be the foundation of the evaluation, providing historical data which may be used as the baseline for the analysis. This will also include looking for key studies or data collection efforts focusing on gender issues in northern Ghana (e.g., USAID RING Gender report). In addition to PBS data, RING, SPRING and WASH have gathered large amounts of data collected and reported through their regular quarterly and annual monitoring processes.

To facilitate the collection of existing data, the evaluation team will hold stakeholder meetings with the USAID/Ghana IPs (RING, SPRING, MalariaCare and WASH), the FTF evaluation contractor, METSS, and government partners (GHS, NRCC and MMDAs) to identify and obtain relevant data, including performance monitoring data. In addition, the team will obtain access to all publicly available data such as LEAP and DHS datasets, as well as UNICEF MICSs. The evaluation team will also inquire about upcoming data collection plans and when any new data will become available (e.g., the new MICS should be implemented in 2017).

Following collection of the secondary data, the evaluation team will create an organizational structure for all data sets and will begin to compare and map them across similarities of variables (e.g., common indicators), date of data collection and geographic location (e.g., specific districts in the Northern Region) to determine the overall coverage of the data. Likely overlaps will involve outcome level data, for example “use of improved drinking water by households” and “percentage of underweight/stunted children under five,” which are collected both in MICS and FTF surveys. Although these outcomes will not be able to be directly linked to the interventions, they will provide an overarching understanding of the progress in the North. This alignment process will be integral in helping the evaluation team understand baseline numbers and identify comparison measures for the progress of nutrition and poverty among women and children in the Northern Region. Based on the data, the most appropriate data analysis approach (e.g., propensity score matching) will be determined. In addition, this review process will allow the team to discover any gaps in data for answering the evaluation questions, especially related to data on women, and to identify what primary data will need to be collected.

STATISTICAL METHODOLOGY. After the secondary data assessment, the evaluation team will have a stronger understanding of the existing data as well as its characteristics, which will be key in finalizing the statistical analysis approach and in designing endline data collection methods and tools. Based on the available data, the team will explore a quasi-experimental design, using the existing PBS data and project monitoring data as the baseline to prospectively match subdistrict or community comparison groups. If pre-intervention

information does not exist for a control group, the assertions on project effects rest on the assumption that participants and controls were identical before the project began, which will not allow for a rigorous analysis. If no control group is found (e.g., non-beneficiaries), the evaluation team will use a pre- and post-test analysis and compare data over time for the intervention groups. The evaluation team will develop and recommend to USAID/Ghana and other key stakeholders the most appropriate and rigorous statistical methodology approach possible.

PRIMARY DATA COLLECTION DESIGN AND IMPLEMENTATION. Following the data assessment, the team will develop quantitative data collection tools for the program endline that will address both data gaps to answer the three evaluation questions and measure higher level outcomes among target beneficiaries, especially among women. In addition to a quantitative district, community and household survey tool, qualitative protocols will be developed to conduct GDs and KIs with beneficiaries, including community members and leaders, local government officials, community health workers' beneficiary families and other relevant respondents. Observation tools might also be developed for any ongoing interventions or community-level activities undertaken as a result of program interventions. The team will share all draft tools with key stakeholders as well as USAID/Ghana to ensure participatory feedback on instrument design. All instruments will be field tested by trained enumerators, with feedback incorporated into final versions.

Based on the differences between the three evaluation questions, qualitative data collection will involve two stages based on the different types of data that will be collected for each question. Stage one will focus primarily on evaluation questions one and two, while stage two will focus primarily on evaluation question three. If necessary, some data collection for questions one and two will also be conducted in the second stage and vice versa. Both data collection stages will also inform the development of the endline survey.

Data for questions one and two will be collected during the same time period since they focus on the individual and community levels, as well as the impact that has occurred through project interventions. Because of these similarities, it is anticipated that similar data collection methods, respondents and tools will be used, although question two will only focus on RING interventions and populations. In addition, a special focus will also be given to the impact of the interventions on women in the communities. It is anticipated that these questions will require data collection over an extended period, especially to measure the resilience of consumption and sustainability (question two), which can be very complex. Stage two will focus on evaluation question three, which differs from questions one and two since it examines outcomes on the district level by local authorities. Since interventions in support of these outcomes are more recent, and due to the importance of local contextual factors, Evaluate proposes looking at this question later in the evaluation timeline, both to allow more implementation time and for learning from the data collected for questions one and two. In addition, some of the data in questions one and two might help to inform question three.

The quantitative beneficiary survey to help answer questions one and two will be implemented toward the end of stage two. Because of the difference in respondent type, another smaller scale survey might be implemented for question three with local government officials.

The Evaluate team leader, research assistant and Evaluate TOI local team will participate in the data collection as needed and will ensure quality control during field work. Evaluate anticipates that data collection for all three questions will take place over a ten-month period, from February to November 2018.

DATA ANALYSIS. The overall study population consists of all vulnerable households in the districts subject to community and government interventions by both USAID and UNICEF in Northern Ghana. The precise types of data analyses to be conducted will be defined for each question during the post-award design meeting with USAID and based on the initial data review. Statistical analysis (SPSS) of quantitative data sets will be carried out to examine results of multiple interventions. Districts and communities will be matched, when possible, by

demographic and geographic characteristics. The statistical analysis will consider changes over time in potential confounders and control for other potential interventions from non-USAID or UNICEF actors.

Available primary and secondary data will be triangulated to complement the quantitative data. Content analysis will be used to analyze qualitative data (e.g., interview transcripts) which will be done across questions and relevant variables using qualitative data analysis software, Nvivo. In addition, relevant monitoring data (e.g., outputs, observations, registrations) will be analyzed over time, across questions, indicators and variables, and compared to the qualitative findings. The overall evaluation-specific statistical data analysis (e.g., factor analysis, instrumental variable approach, etc.) will be finalized after the secondary data assessment is complete.

REPORTING AND DISSEMINATION OF FINDINGS

The evaluation team will prepare periodic progress reports for the stakeholder committee and ensure broad dissemination of the final report. Key activities include:

- Evaluation stakeholder meetings at the beginning of the evaluation to identify and collect relevant data and to review the overall evaluation approach.
- Proposed data collection instruments shared with USAID and target IPs
- Presentation of draft evaluation report to stakeholders for feedback, including input on recommendations for final report.
- Dissemination meeting at the end of the evaluation to share key findings, conclusions and recommendations.

STAFFING

The evaluation team leader will have experience in conducting complex evaluations related to nutrition and resiliency. It is anticipated that her primary expertise will be in nutrition. She will be assisted by a research assistant with experience in poverty and resiliency. The evaluation will recruit a specialized team of enumerators/interviewers experienced in quantitative surveys of local communities and in interviewing beneficiary populations in the Northern Region. The evaluation team leader will serve as the principal investigator of the study, working in consultation with the Evaluate project director, MSI's home office technical director and technical manager.

The research assistant will have experience in statistical methods, instrument design, data collection and quantitative and qualitative analysis. S/he will be responsible for a literature review. Evaluate will recruit an intern to participate as a junior researcher with the evaluation team, for learning purposes.

The team leader qualifications will include: over 10 years in public health research, with at least five years devoted to design, implementation and evaluation of nutrition research in Ghana; demonstrated ability to review and synthesize data from diverse studies and statistical sources; familiarity with data analysis software (SPSS, Stata, SAS) and quasi-experimental evaluation design; excellent communication and writing skills in English; and available to lead the core research team over a 24-month period and to coordinate the evaluation with HPNO and its IPs.

Gender considerations: one of the key objectives across these projects is the focus on women, recognizing the importance of their role both in the social and economic wellbeing of a household. To ensure adequate capture of program impacts on women, gender considerations related to data collection (e.g., using female enumerators) and analysis will be fully explored during the team planning meeting and integrated into the research plan.

Gender data will be both collected and analyzed to help understand the nutrition behaviors and household resiliency in Northern Ghana and to assess if project outputs are reaching the intended beneficiaries, women. During the initial secondary data assessment, available resources will be reviewed to determine what relevant gender data are available and what gaps exist. This information will help guide data collection and analysis for this

study. The evaluation team will examine gender components across all the evaluation questions and, when necessary, especially in question one, will oversample women to ensure they are represented across the questions and findings. Gender findings will be specially represented in the final report.

Deliverable	Description	Person(s) responsible	Estimated Timeframe
Team Planning meeting	Initial team planning meeting for evaluation planning	Evaluation team	July 2017
Research plan and finalized work plan	Finalized evaluation plan based on initial document and data review-work plan, timeline, indicators, methodology, etc.	Team Leader	August 2017
Evaluation Stakeholder meetings	Meeting with key stakeholders to gather existing data and resources	Evaluation team	August 2017
Data extraction from existing documents and databases	Develop database for the analysis, extract, upload and organize data	Researchers	August/September 2017
Finalized statistical methodology	Finalized statistical methodology approach based on available data sets (e.g., regression discontinuity)	Team Leader	October 2017
Proposed Data collection instruments	Data collection instruments will be shared with USAID and IPs for feedback	Evaluation team	November 2017
ERB Approval	Team will go through ethic review board if necessary.		November/December 2017
Finalized data collection instruments and protocols	Instrument will be finalized based on feedback from stakeholders	Researchers	December 2017
End of year progress report	Short report on study progress.	Team leader	January 2018
Data Collection (stage one)	EQ1 and EQ2 data collection logistics, enumerator training and fieldwork	Evaluation team and enumerators	February – May 2018
Data collection stage one progress report	Preliminary findings from stage one and modification as required of instruments for stage two		June 2018
Data collection (stage two)	EQ3 data collection logistics, enumerator training and fieldwork	Evaluation team and enumerators	June – Sept 2018
Endline survey	EQ1 and EQ2 survey implementations	Evaluation team and enumerators	Sept/Oct 2018
Progress report	Short report on study progress.	Team leader	Dec 2019
First draft of evaluation report	Draft report for technical review	Evaluation team	Dec 2019
Presentation of draft evaluation report to stakeholders	Presentation of preliminary results for comment from stakeholders	Team Leader	Dec 2019
Final Evaluation Report	Finalize findings, conclusions and recommendations for submission	Evaluation team	Jan 2019
Dissemination Meeting	Public presentation of final report findings, conclusions and recommendations	Evaluation team	Feb 2019

Table 4: Anticipated Deliverables and Schedule (adjusted based on SC input)

ANNEX C: EVALUATION TEAM

On behalf of the USAID Evaluate for Health Project, [REDACTED], team leader, coordinated and led the evaluation team. He was supported by [REDACTED], MSI Technical Manager, to design, implement and disseminate the evaluation and by [REDACTED], Evaluate's Senior M&E specialist, who supported both the ethical review process and procedures, and the quantitative analysis. Evaluate and MSI technical guidance was provided by Project Director Dr. [REDACTED] and Technical Director [REDACTED]. In addition, the evaluation team included all 22 quantitative and qualitative data collectors, qualitative data coder, quantitative data analyst, and steering committee members. More information on key team members is provided below.

Evaluation Team Leader: Mr. [REDACTED] is a trained public health specialist with over 16 years of practical experience designing and managing development oriented public health programs in Ghana with a particular focus on Monitoring and Evaluation (M&E). He has coordinated the design, implementation, monitoring, and evaluation of interventions on health systems, malaria, nutrition, maternal, neonatal and child health, neglected tropical diseases, family planning, and reproductive health. He has also coordinated the conduct of several baselines, process, outcome and impact evaluations on various health and developmental issues. [REDACTED] has trained, mentored and coached health staff at all levels of the health system (facility, sub-district, district, regional and national). [REDACTED] has also provided technical support in the area of M&E, GIS, data management, and analysis for public health intervention for several organizations in and outside Ghana. [REDACTED] has worked for several USAID-funded projects and the Carter Center. He has also provided technical expertise for WHO & UNICEF (Guinea Worm Eradication/WASH), the Opportunities Industrialization Center International, World Vision International, and the Ghana Health Service among others. He provided technical support for the revision of the Community Based Surveillance (CBS) System of the Ghana Health Service in 2008, and the review of Ghana's consulting room register in 2010.

Technical Manager: [REDACTED] is a Technical Manager on the Strategy, Evaluation and Analysis team at MSI. Ms. [REDACTED] provides M&E support to multiple government and private sector clients in a variety of areas, including health, agriculture, and food security. Ms. [REDACTED] has been involved in various evaluations and research studies from design to final report with experience in both qualitative and quantitative design and analysis methods. Her expertise includes evaluations and monitoring systems, strategic planning, and results-based management. Ms. [REDACTED] currently works with USAID's Ghana Evaluate for Health project providing technical M&E assistance to the local team supporting implementing partners, the Mission, and managing multiple health evaluations and a national survey. Ms. [REDACTED] holds a Masters of Global Public Health from George Washington University and her Bachelor of Science in Sociology from Portland State University.

Senior M&E Specialist: [REDACTED] is a M&E specialist and a Medical Statistician by profession, public health epidemiologist and researcher. [REDACTED] has 10 years of experience in researching, monitoring, managing, and building capacity for community-based and institution-based interventions across a wide range of health sector, including newborn, maternal and child survival, health systems strengthening, malaria epidemiology, health information management systems, sexual and reproductive health, family planning, infection control, nutrition and HIV/AIDS. [REDACTED] has extensive experience working with health project staff to develop results frameworks, indicators, PMPs and data collection instruments, and to carry out Data Quality Assessments (DQAs) and develop data quality strategies. He also has in-depth research skills, including application of quantitative and qualitative methodologies. He also served as Medical statistician/M&E Specialist for the Kintampo Health Research Center on studies related to malaria and maternal and child mortality including large scale clinical trials.

Evaluation Team Member (Qualitative coder and data collector): [REDACTED] is an independent multi-lingual mixed methods researcher and a clinical biochemist with a Master of Science in Molecular Medicine from the Kwame Nkrumah University of Science and Technology, Kumasi – Ghana. [REDACTED] is proficient in the use

of qualitative software NVivo and has a working knowledge of SPSS and has over 8 years work experience in both qualitative and quantitative research. He was the qualitative research team leader for the nationwide USAID/Ghana HPNO 2019 End-line and 2017 midline study conducted by USAID/MSI Evaluate for Health.

█████'s tremendous research experience has allowed him to be on several quantitative and qualitative studies on health, and other developmental including analyzing quantitative and qualitative data and writing reports. He has also done works for/or in collaboration with the Fhi360, Total Family Health Organization [TFHO], TNS-KANTAR PUBLIC- UK-AID, Price-water Coopers Ghana Ltd (COTVET)., Ministry of Children, Gender and Social Protection; National Health Insurance Authority of Ghana; Mennonite Economic Development Associates (MEDA) of Canada; Marie Stopes, PharmAccess; IFC, the World Bank and the Electoral Commission of Ghana.

Evaluation Support (Quantitative data analysis): Dr. [REDACTED] is a trained Public Health Nutritionist and a Senior Lecturer in the School of Allied Health Sciences of the University for Development Studies, Ghana, where he has been a member of faculty since 2005. He has vast experience in both basic and applied research in nutrition and allied fields. Dr. Abizari has been involved in large collaborative research projects with funding support from UNICEF, IFPRI, USAID, GAIN, CIDA, Nestle Foundation for Nutrition Research and Wageningen University since 2001. His research interest includes micronutrient nutrition, school feeding, food and nutrition security, quantitative dietary assessment, maternal nutrition, and infant and young child nutrition. He has shared his research findings at international conferences and published in highly reputable international journals

Steering Committee Members included:

- Dr. [REDACTED] – Project Director, USAID Evaluate for Health
- Dr. [REDACTED] – GHS/Deputy Director Public Health
- Dr. [REDACTED] – UDS/School of Allied Health Sciences
- [REDACTED], USAID
- [REDACTED] – USAID RING
- [REDACTED] – GHS/RHD/Nutrition
- [REDACTED] – UNICEF
- [REDACTED] – WASH for Health
- [REDACTED] – Regional Coordinating Council
- [REDACTED] – USAID METSS
- [REDACTED] – World Food Programme

ANNEX D: DATA COLLECTION SAMPLE SIZES

SAMPLING SIZE

The evaluation team used a mixture of purposive and systematic sampling methods for the quantitative survey. The team purposively selected 10 districts based on interventions of interest, with one of the districts being a W4H intervention area. The evaluation team adopted a two-stage sampling approach using probability proportionate to size (PPS) based on the Ghana Statistical Service enumeration areas utilized for the SPRING|RING baseline survey 2015 by the METSS project. The first stage involved the selection of 46 enumeration areas from the 10 districts.

The second stage involved the random selection of a total of 860 households drawn from the 46 Enumeration Areas (EAs) using systematic sampling procedures. No stratification was carried out before sampling. A maximum of 20 households were randomly selected from each EA based on the available household listing from the METSS project. If a head of a household chosen is unwilling to participate in the study or is not at home after three visits, the household would be dropped without replacement. Since households were selected randomly in the EA, not all households had received support from project interventions.

Three major factors were considered in determining the overall survey sample. These are (1) the estimated prevalence of the variable of interest (prevalence of Malnutrition based on (GDHS 2014) in this instance), (2) the desired level of confidence and (3) the acceptable margin of error. In consideration of these factors, the evaluation used the following steps to calculate the sample size:

STEP 1: BASE SAMPLE-SIZE CALCULATION

The base sample size was calculated using this formula.

$$\text{Formula: } n = \frac{t^2 \times p \times (1-p)}{m^2}$$

Description: n = required sample size

t = confidence level at 95% (standard value of 1.96)

p = prevalence of Malnutrition based on GDHS 2014

m = margin of error at 5% (standard value of 0.05)

$$n = \frac{1.96^2 \times 0.331 \times (1 - 0.331)}{0.05^2}$$

$$n = \frac{3.8416 \times 0.221439}{0.0025}$$

$$n = \frac{0.85068}{0.0025}$$

$$n = 340.272025 \sim 340$$

STEP 2: DESIGN EFFECT

Since the evaluation is conceived as a cluster sample, to correct for the difference in design, the sample size ($n = 340$) is multiplied by the design effect (D). The design effect which accounts for the cluster design (assumed to be 2). Hence to correct for the difference in design: $n \times D = 340 \times 2.2 = 748$

STEP 3: CONTINGENCY

Now, the sample is further increased by 15% to account for contingencies such as non-response or recording error. In situations where there is a non-response, households would not be replaced.

$$n + 15\% \text{ of calculated sample size} = 680 \times 1.15 = 860$$

The final survey sample size after all the calculations to account for errors was 860 households. However, we oversampled to 881 to include all eligible households used for the baseline in each of the 10 sampled districts.

SAMPLING APPROACH FOR QUALITATIVE DATA COLLECTION

For evaluation questions one and two, the study team will conduct a total of 46 KII and 20 FGD.

Level	#	Respondents
KII at District Level	15	3 per district and would be drawn from decentralized agencies interviewed at the regional level
KII at community Level	26	Drawn from 13 sampled EAs (2 per EA). These respondents will be selected based on their roles in the community and knowledge of nutrition and poverty reduction initiatives in their communities. Preferably a male and female community opinion leader.
FGD at community level	25	Beneficiaries and non-beneficiaries of the project (46 per district). Participants will be selected based on being beneficiaries of Small Ruminants, Soybean, Green Leafy Vegetables, Iodized Salt Re-bagging, VSLA, Community Milling, Boreholes, and household sanitation facilities.

SAMPLED DISTRICTS FOR EVALUATION QUESTION 3

For EQ3, the sampling of the five districts was based on their stage of implementation to get a varying degree of districts' perspectives. Districts were purposively selected for based on the following criteria:

1. All 5 districts were to be selected based on whether they were part of G2G in the years for consideration (two districts from 2015, two from 2016 and one from 2017).
2. Priority is given to districts that were part of the quantitative evaluation.
3. Districts should not be part of the RING Midterm Evaluation; East Mamprusi was dropped.
4. Geographic spread: East Gonja was given priority over Kumbungu and Kpandai.
5. Required travel time.

Shortlisted Districts that were part of G2G in 2015	Districts that joined G2G in 2016	Districts that joined G2G in 2017	Final Selected Districts
Savelugu, West Gonja, East Mamprusi, Central Gonja	Kumbungu, East Gonja or Kpandai. Karaga	Gushegu North Gonja	Savelugu, 2015 West Gonja, 2015 Karaga, 2016 East Gonja, 2016 Gushegu, 2017
– East Mamprusi dropped Because of RING Midterm Evaluation – Central Gonja which was part of the districts was dropped	Karaga and East Gonja selected	Gushegu selected based on travel time	

Key informants included the regional coordinating director, regional planning officer and the district coordinating directors and planning officers, other representatives from ministries departments and agencies and developmental partners at the district level. Ten focus group discussions would also be held with coordinators at the area council level and assembly men. Direct observations of some district level activities/meetings will provide further evidence to enrich findings.

Level	#	Respondents
KII at Regional level	5	One economic planning officer, coordinating director, department of community development, department of social protection, community water and sanitation, implementing/development partners at the regional level.
KII at District Level	30	6 per district and would be drawn from decentralized agencies and from the district assembly structure, implementing/development partners at the district level
FGD at District Level	10	2 per district, coordinators at the area council level and assembly men

INTERVIEW RESPONDENTS FOR QUESTION THREE:

District	Persons Selected for KII by District	Target Groups & Zonal Councils Selected for FGD
Savelugu	1. Municipal Coordinating Director 2. Municipal Planning Officer 3. Municipal Director of Agriculture 4. Municipal Director of Health Services	• Area Councilors - Pong Tamale - (Decentralized Agencies at the area council level -) • Assembly Members – Moglar and Pong Tamale
East Gonja	1. Municipal Coordinating Director 2. Municipal Planning 3. Municipal Environmental health 4. Municipal Director of Agriculture	• Assembly Men: Kpariba Area Council • Area Councilors - Bunjai Area Council – (Chairman, Secretary Unit Committee Members)
West Gonja	1. District Planning Officer 2. Deputy District Coordinating Director 3. Agric and Livelihoods 4. District Nutrition Officer	• Area Councilors - Busunu – (Chairman, Secretary, Unit Committee Members) • Assembly members: Damongo & Laribanga Area Councils

Gushegu	1. Municipal Coordinating Director 2. Municipal Planning Officer 3. Municipal Director of Health 4. Municipal Environmental health 5. Municipal Director of Agriculture	• Area councilors - Zanteli & Nawuhugu – (Chairman, Secretary, Natural, Leaders) • Assembly Men - Nawuhugu and Nabuli
Karaga	1. District Coordinating Director 2. District Planning officer 3. Senior Technical Engineer 4. District Agriculture Focal Person	• Area Councilors - Sakulo - Assembly Persons - Pishugu

ANNEX E: PRIOR STUDIES ON POVERTY AND NUTRITION IN NORTHERN GHANA

There have been many studies conducted in Northern Ghana focusing on nutrition and poverty. These studies are important to understanding both the current situation and the progress over the years in the north. For example, a baseline study conducted by Africa Research in Sustainable Intensification for the Next Generation (Africa RISING) in 2015 focused on nutrition-related measurements such as weight, height, age and breastfeeding, to determine the prevalence of wasting and stunting. These measures, in addition to the region, age of mother, place of delivery and occurrence of diarrhea in the past two weeks, were all found to be statistically significant predictors of nutritional status in this population⁴⁴. This study found that half of the children under the age of two in northern Ghana do not meet the WHO standards on dietary diversity and meal frequency for nutrition. It also found that socioeconomic status and the presence of animals such as chicken or ducks at a child's home were strongly related to dietary diversity in children of this age group.

Another study conducted in 2017 by *UNICEF Office of Research* focused on rural pregnant women and mothers with infants and explored ways public policy could affect child nutrition by focusing on child characteristics (e.g., birth order and gender), education for mothers and caregivers, income growth, and water and sanitation and community characteristics as an integrated model in predicting nutrition levels, rather than as separate indicators. They found that the most effective interventions target children under the age of two, and are complex, including addressing price shock avoidance (being able to respond when prices of food rise unexpectedly), maternal health, and household resources⁴⁵.

A Feed the Future (FTF) report from 2017 found that though Ghana had successfully lowered the percentage of children country-wide who were underweight, wasted or stunted, northern Ghana still had a significant proportion of children with such nutritional issues. FTF has linked this to factors such as poverty, disease, quality of water and sanitation, and education on infant feeding. Thus, it has been tailoring nutrition-related programs to focus on food security, training for mothers and caregivers, and access to a greater diversity of foods. As a result, FTF reported an 18 percent decrease in child stunting and a 12 percent decrease in poverty in the regions where they worked (Northern, ADD) from 2012 to 2017.

DFID conducted an impact evaluation in 2015 of the Millennium Villages Project (MVP) in Northern Ghana, a community-led development project. The report found that participation levels in health activities providing access to vitamin A and food supplements for children were very similar for their intervention group and the control group, which they attributed to the prevalence of effective nutrition and health related interventions implemented by other organizations and the government in the region. Their second round of data collection found that poverty had increased since the baseline data collection, but extreme poverty had decreased, with no significant differences between the intervention and control groups; and that agricultural and microenterprise income had increased. Both of these sources of income could directly affect nutrition levels and food diversity for children in the groups⁴⁶.

⁴⁴ Saaka, M., Larbai, A., Hoeschle-Zeledon, I., & Appiah, B. (2015). Child Malnutrition in northern Ghana: evidence, factors, and recommendations from a new study. Africa Research in Sustainable Intensification for the Next Generation (Africa RISING). Retrieved from https://cgspace.cgiar.org/bitstream/handle/10568/67037/AR_Ghana_Child_Malnutrition_may2015.pdf?sequence=6

⁴⁵ de Groot, R., Handa, S., Ragno, L.P. and Spadafora, T. (2017). Child Malnutrition, Consumption Growth, Maternal Care and Price Shocks: New Evidence from Northern Ghana, Innocenti Working Paper 2017-01 UNICEF Office of Research, Florence. Retrieved from https://www.unicef-irc.org/publications/pdf/IWVP-01%20-%20Improving%20child%20nutrition%20in%20Northern%20Ghana_PUBLISHED.pdf

⁴⁶ Masset, Eduardo. (2015). Northern Ghana Millennium Villages Impact Evaluation: Preliminary Report on the Second Round of Data. DFID. Retrieved from https://opendocs.ids.ac.uk/opendocs/bitstream/handle/123456789/5902/2014_MV%20Eval_Year%202%20Report_24Feb15_submitted.pdf;jsessionid=89DF60DE5B04057D092543703BAE1335?sequence=1

A 2014 UNICEF Inequality Report showed that poverty reduction has slowed, and significant reductions have occurred in primarily urban areas, with the more rural Northern Region having the smallest reduction in poverty over the past decade compared with other regions in Ghana. Rural regions were four times as impoverished as urban regions. The northern areas of the country also had the highest levels of inequality. The study concluded that this disparity is impeding the effects of national poverty reduction efforts by 1.1-2.8 percentage points. UNICEF also found that while poorer households' incomes are increasing at a higher rate than average, this increase was a recent development and was only the case in urban areas. The study's overarching conclusions were that inequality has been a primary reason for why poverty reduction efforts have stalled, particularly in rural areas, and that development in Ghana has benefited urban populations disproportionately more than rural populations.⁴⁷

Ghana's National Development Planning Commission's 2016 report on the Cost of Hunger in Africa agrees with the other reports that there have been positive impacts from nutrition programs in Ghana. Nevertheless, as with the other reports, it maintained that malnutrition remains much too high and leads to physical weakness and learning delays which then result in less productivity for future generations in the workforce. The report concluded that the economic cost due to malnutrition was GHS 4.6 billion in 2012 (based on health, education, and labor). Also, they estimated a 7.3 percent decrease in the current working population, and 41 percent of manual laborers due to this lower lifetime productivity. The report stressed the high economic cost of treating undernourished children, including costs for medicines and medical care. Even if stunting and malnourishment were to remain at the same prevalence from 2012 to 2025, the cost to society would rise by 47 percent. Decreasing malnutrition by 50 percent would see a decline in the cost of almost 2.5 billion USD in the timeframe, while decreasing stunting to 10 percent and underweight prevalence to five percent would see a decrease of 3.1 billion USD⁴⁸.

⁴⁷ Ciani, F and Romano D. (2014) Testing for household resilience to food insecurity: evidence from Nicaragua 3rd AIEAA Conference - Alghero, 25-27 June 2014

⁴⁸ National Development Planning Commission. (2016). Social and Economic Impact of Child Undernutrition on Ghana's Long-Term Development. The Cost of Hunger in Africa – National Development Planning Commission, Republic of Ghana. Retrieved from <https://s3.amazonaws.com/ndpc-static/CACHES/PUBLICATIONS/2016/07/23/GHANA+COHA+REPORT.pdf>

ANNEX F: ADDITIONAL DATA TABLES

F.1: Number of interventions by Types and IP by District and Enumeration Area (community)

District	# HH interviewed	Enumeration area	Intervention by IP				Intervention by Type				
			RING	SPRING	Leap 1000	W4H	AGRIC	NUT	WASH	VSLA	Other Livelihood
Central Gonja	123	Buipe GPRTU Office	3					2	1		
		Buipe Speed link restaurant	3					2	1		
		Chama D/A JHS	3				1	1	1		
		Gbungbunto	3				1	1	2		
		Kabilpe	6				1	1	3	1	
		Kpabuso- Kingbigi D/A JHS	1				1				
		Mpaha Market	5				2	2	1		
Karaga	126	Bagkurli			1						
		Galabini			1						
		Karaga (Abdul Rahaman's House)	5				2	1	1	1	
		Karaga Junior High School	3				2			1	
		Kpataribogu (Methodist Prim School)			1						
		Pishegu (Mallam Landani House)	5				2	1	1	1	
		Tamaligu (Central Mosque)	5		1		3		1	1	
Mamprusi East	123	Langbinsi (Asariah E/A Prim Sch)	4		1		2		1	1	
		Latarigu			1						
		Ningare (Sumaniyiri)	4	3			2	1	1	1	2
		Samene (Nayiri Kura's House)	3					1	1	1	
		Samene (Yimbasi's House)	3					1	1	1	
		Tambowku L/A Primary School	3				2			1	
		Zandua Kassim Kukari's House	4				1		1	1	1
Mion	19	Kpabia(Danee-Na Yili)			1						
Savelugu Nanton	105	Diare Zakari's House	1							1	
		Nanton Afa Abdulai's House)	3				1		1	1	
		Savelugu Behisung Prim School	1							1	

		Savelugu Corn Mill	2						1	1	
		Savelugu slaughter house	1							1	
		Tarikpaa Baptist Church	2				1			1	
Sawla-Tuna-Kalba	143	Konkrompe				1			1		
		Jelinkon				1			1		
		Blema No.2				2			2		
		Blema No.1				2			2		
		Digsie				1			1		
		Nasoyiri				2			2		
Tatale-Sanguli	19	Bikonkolibi No.2		3			1	1	1		
West Gonja	143	Busunu Chief's Palace	4					1	3		
		Damongo Agric College	1						1		
		Damongo Kalaye's House	1						1		
		Damongo Market	1						1		
		Larabanga Salia Brother's Guest House	3					1	1	1	
		Mognori Village	2				2				
		Murugu Chieft Palace	2				2				
		Sor. No.2	3					1	2		
Yendi Municipal	19	Adibo (Health Centre)		2			1	1			
Zabzugu	38	Kuntumbiyili Market		3			1	1	1		
		Old Nyankpala		3			1	1	1		

TABLE F.2: RING INTERVENTIONS

AGRICULTURE AND LIVELIHOODS INTERVENTIONS	HEALTH AND NUTRITION	GOVERNANCE
• Village Savings and Loan Associations (VSLA) • Orange Fleshed Sweet Potatoes (OFSP) • Soybean Cultivation • Small Ruminants • Shea Collection and Marketing Linkages • Leafy Green Vegetable Cultivation (LGV) with Drip Irrigation • Poultry Pilot • Groundnut Pilot • Soil Improvement Efforts • Regional Agriculture Department Engagement (on a wide range of topics from post-harvest handling to IPM)	• Logistics Management of Nutrition Commodities • Anemia Prevention and Control • Community-Based Management of Acute Malnutrition • Community Infant and Young Child Feeding • Data Utilization and Outreach Planning • Quality Improvement Training • ENA Nutrition Related Training • Community-Based Mass Media Campaign • Cooking Demonstrations • Mother-to-Mother Support Groups • Strengthening Monitoring, Supervision and Coaching for Nutrition • Community-Led Total Sanitation • Hygiene and Sanitation Promotion - Non-Environmental Health System • Latrine Artisan Training • Borehole & Livestock Watering Repair • Handwashing Stations • Improved Water Storage and Treatment • Rain Water Harvesting • Pipe Water Extension • Latrine Repairs	• Public Finance Management Risk Mitigation in G2G Districts • Public Finance Management Risk Mitigation in Subcontracted Districts • Community Engagement Efforts • District Sub-Structure Strengthening • Collaborative Planning & Budget Meetings • Capacity Building

TABLE F.3: STUNTING LEVELS AT BASELINE AND ENDLINE

STUNTING	BASELINE		ENDLINE		TOTAL	
	COUNT	%	COUNT	%	COUNT	%
Severe Stunting	78 _a	12.7%	82 _a	11.5%	160	12.1%
Moderate Stunting	121 _a	19.6%	141 _a	19.9%	262	19.8%
Not stunted	417 _a	67.7%	487 _a	68.6%	904	68.2%
Total	616	100%	710	100%	1,326	100%

Each “a” subscript letter at endline denotes a subset of survey time categories whose column proportions do not differ significantly from each other at the .05 level. “b” at endline is statistically significant

TABLE F-4: STUNTING BY SURVEY TIME AND SEX

STUNTING		BASELINE		ENDLINE		TOTAL	
		COUNT	%	COUNT	%	COUNT	%
Male	Severe Stunting	50 _a	17.2%	51 _a	14.5%	101	16.0%

TABLE F-4: STUNTING BY SURVEY TIME AND SEX

STUNTING	BASELINE		ENDLINE		TOTAL		
	COUNT	%	COUNT	%	COUNT	%	
Moderate Stunting	60 _a	20.6%	77 _a	21.9%	137	20.7%	
Not Stunted	181 _a	62.2%	223 _a	63.6%	404	63.3%	
Total	291	100%	351	100%	642	100%	
Female	Severe Stunting	28 _a	7.1%	31 _a	9.4%	59	8.3%
	Moderate Stunting	61 _a	19.8%	64 _a	17.0%	125	18.3%
	Not Stunted	236 _a	73.1%	264 _a	73.6%	500	73.3%
	Total	325	100%	359	100%	684	100%

Each “a” subscript letter at the column “count” endline denotes a subset of survey time categories whose column proportions do not differ significantly from baseline at the .05 level. “b” at endline is statistically significant at the 0.5 test level.

TABLE F-5: STUNTING BY AGE * SURVEY TIME CROSSTABULATION

AGE (MONTHS)	STUNTING	BASELINE		ENDLINE		TOTAL	
		COUNT	%	COUNT	%	COUNT	%
<6	Severe Stunting	4	5.9%	2	2.9%	6	4.4%
	Moderate Stunting	3	4.5%	4	5.7%	7	5.1%
	Normal	60	89.6%	64	91.4%	124	90.5%
	Total	67	100.0%	70	100.0%	137	100.0%
6 to 23	Severe Stunting	30	16.9%	28	11.6%	58	13.8%
	Moderate Stunting	26	14.6%	40	16.5%	66	15.7%
	Not Stunted	122	68.5%	174	71.9%	296	70.5%
	Total	178	100.0%	242	100.0%	420	100.0%
24- 59	Severe Stunting	44	11.9%	52	13.1%	96	12.5%
	Moderate Stunting	92	24.8%	97	24.4%	189	24.6%
	Not Stunted	235	63.3%	249	62.5%	484	62.9%
	Total	371	100.0%	398	100.0%	769	100.0%

TABLE F-6: LOGISTIC REGRESSION MODEL OF NUTRITION (STUNTING) AND OTHER EXPLANATORY VARIABLES

VARIABLES	UNADJUSTED ORDINAL LOGISTIC REGRESSION MODEL			ADJUSTED ORDINAL LOGISTIC REGRESSION MODEL		
	ODDS RATIO	95% (CI)	P VALUE	ODDS RATIO	95% CI	P VALUE
Sex						
Male	1			1		
Female	0.48	(0.22, 0.75)	<0.001	1.6	(1.22, 2.10)	0.001
Age group in Months						
<6	1			1		
6-8	0.32	(0.11, 0.90)	0.031	0.31	(0.11, 0.90)	0.030
9-11	0.31	(0.11, 0.88)	0.028	0.30	(0.10, 0.89)	0.029
12-17	0.21	(0.09, 0.51)	0.001	0.22	(0.09, 0.54)	0.001
18-23	0.07	(0.03, 0.17)	<0.001	0.07	(0.03, 0.17)	<0.001
24-35	0.12	(0.05, 0.28)	<0.001	0.12	(0.05, 0.28)	<0.001
36-47	0.10	(0.05, 0.23)	<0.001	0.10	(0.04, 0.23)	<0.001
48-59	0.13	(0.06, 0.29)	<0.001	0.12	(0.05, 0.28)	<0.001
TOILET						
Non-Open defecation	1.00			1		
Open defecation	1.59	(1.21, 2.10)	0.001	0.50	(0.20, 0.74)	0.001

TABLE F7: WASTING LEVELS AT BASELINE AND ENDLINE

	BASELINE		ENDLINE		TOTAL	
	COUNT	%	COUNT	%	COUNT	%
Severe Wasting	32 _a	5.2%	31 _a	4.4%	63	4.8%
Moderate Wasting	52 _a	8.4%	74 _a	10.4%	126	9.5%
Not Wasted	532 _a	86.4%	605 _a	85.2%	1,137	85.7%
Total	616	100%	710	100%	1,362	100.00%

Each “a” subscript letter at the column “count” endline denotes a subset of survey time categories whose column proportions do not differ significantly from baseline at the .05 level. “b” at endline is statistically significant at the 0.5 test level.

TABLE F8: WASTING * SURVEY TIME * SEX CHILD CROSSTABULATION

SEX	WASTING	BASELINE		ENDLINE		TOTAL	
		COUNT	%	COUNT	%	COUNT	%
Male	Severe Wasting	21 _a	7.2%	18 _a	5.1%	39	6.1%
	Moderate Wasting	21 _a	7.2%	43 _a	12.3%	64	10%
	Not Wasted	249 _a	85.6%	290 _a	82.7%	539	84.6%
	Total	291	100%	351	100%	642	100%
Female	Severe Wasting	11 _a	3.4%	13 _a	3.6%	24	3.5%
	Moderate Wasting	31 _a	9.5%	31	8.6%	62	9.1%
	Not Wasted	283 _a	87.1%	315 _a	87.8%	598	87.4%
	Total	325	100%	359	100%	684	100%

Each “a” subscript letter at the column “count” endline denotes a subset of survey time categories whose column proportions do not differ significantly from baseline at the .05 level. “b” at endline is statistically significant at the 0.5 test level.

TABLE F9: WASTING BY AGE * SURVEY TIME CROSSTABULATION

AGE (MONTHS)	WASTING	BASELINE		ENDLINE		TOTAL	
		COUNT	%	COUNT	%	COUNT	%
<6	Severe Wasting	4	5.97%	5	7.14%	9	6.6%
	Moderate Wasting	12	17.91%	9	12.86%	21	15.3%
	Not Wasted	51	76.12%	56	80.00%	107	78.1%
	Total	67	100%	70	100%	137	100%
6 to 23	Severe Wasting	16	8.79%	21	8.68%	37	8.7%
	Moderate Wasting	21	11.54%	40	16.53%	61	14.4%
	Not Wasted	145	79.67%	181	74.79%	326	76.9%
	Total	182	100.00%	242	100.00%	424	100.00%
24- 59	Severe Wasting	12	3.23%	5	1.26%	17	2.2%
	Moderate Wasting	19	5.12%	25	6.28%	44	5.7%
	Not Wasted	340	91.64%	368	92.46%	708	92.1%
	Total	371	100.00%	398	100.00%	769	100.00%

TABLE F10: LOGISTIC REGRESSION MODEL OF NUTRITION (WASTING) AND OTHER EXPLANATORY VARIABLES

VARIABLES	UNADJUSTED ORDINAL LOGISTIC REGRESSION MODEL			ADJUSTED ORDINAL LOGISTIC REGRESSION MODEL		
	ODDS RATIO	95% (CI)	P VALUE	ODDS RATIO	95% CI	P VALUE
Age group in Months						
<6	1			1		
6-8	0.80	(0.35, 1.82)	0.60	0.81	(0.36, 1.85)	0.62
9-11	0.60	(0.29, 1.23)	0.16	0.59	(0.29, 1.23)	0.16
12-17	0.81	(0.42, 1.56)	0.54	0.84	(0.43, 1.64)	0.61
18-23	1.11	(0.55, 2.23)	0.76	1.10	(0.55, 2.22)	0.77
24-35	1.82	(0.97, 3.42)	0.06	1.80	(0.96, 3.39)	0.06
36-47	3.85	(1.88, 7.88)	<0.001	3.89	(1.90, 7.98)	<0.001
48-59	3.35	(1.44, 7.81)	0.005	3.43	(1.47, 8.01)	0.004
TOILET						
Non-Open defecation	1.00			1		
Open defecation	1.37	(0.97, 1.96)	0.07	1.39	(0.96, 2.01)	0.07

TABLE F11: UNDERWEIGHT LEVELS AT BASELINE AND ENDLINE

	BASELINE		ENDLINE		TOTAL	
	COUNT	%	COUNT	%	COUNT	%
Severe Underweight	41 _a	6.70%	53 _a	7.50%	94	7.10%
Moderate Underweight	91 _a	14.70%	126 _a	17.70%	217	16.40%
Not Underweight	484 _a	78.60%	531 _a	74.80%	1015	76.50%
Total	616	100%	710	100%	1,326	100.00%

Each “a” subscript letter at the column “count” endline denotes a subset of survey time categories whose column proportions do not differ significantly from baseline at the .05 level. “b” at endline is statistically significant at the 0.5 test level.

TABLE F12: UNDERWEIGHT LEVELS AT BASELINE AND ENDLINE BY SEX

	UNDERWEIGHT	BASELINE		ENDLINE		TOTAL	
		COUNT	%	COUNT	%	COUNT	%
Male	Severe Underweight	27 _a	9.3%	35 _a	10.0%	62	9.66%
	Moderate Underweight	49 _a	16.8%	69 _a	19.6%	118	18.38%
	Normal	215 _a	73.9%	247 _a	70.4%	462	71.96%
	Total	291	100%	351	100%	642	100%
Female	Severe Underweight	14 _a	4.3%	18 _a	5.0%	32	4.4%
	Moderate Underweight	42 _a	12.9%	57 _a	15.9%	99	13.1%
	Normal	269 _a	82.5%	284 _a	79.1%	553	82.5%
	Total	325	100%	359	100%	684	100%

Each “a” subscript letter at the column “count” endline denotes a subset of survey time categories whose column proportions do not differ significantly from baseline at the .05 level. “b” at endline is statistically significant at the 0.5 test level.

TABLE F13: UNDERWEIGHT BY AGE * SURVEY TIME CROSSTABULATION

AGE (MONTHS)	UNDERWEIGHT	BASELINE		ENDLINE		TOTAL	
		COUNT	%	COUNT	%	COUNT	%
<6	Severe Underweight	4	5.97%	4	5.71%	8	5.84%
	Moderate Underweight	5	7.46%	7	10.00%	12	8.76%
	Not Underweight	58	86.57%	59	84.29%	117	85.40%
	Total	67	100.00%	70	100.00%	137	100.00%
6 to 23	Severe Underweight	12	6.74%	25	10.33%	37	8.81%
	Moderate Underweight	31	17.42%	50	20.66%	81	19.29%
	Not Underweight	135	75.84%	167	69.01%	302	71.90%
	Total	178	100.00%	242	100.00%	420	100.00%
24- 59	Severe Underweight	25	6.74%	24	6.03%	49	6.37%
	Moderate Underweight	55	14.82%	69	17.34%	124	16.12%
	Not Underweight	291	78.44%	305	76.63%	596	77.50%
	Total	371	100.00%	398	100.00%	769	100.00%

TABLE F 14: LOGISTIC REGRESSION MODEL OF NUTRITION (UNDERWEIGHT) AND OTHER EXPLANATORY VARIABLES

VARIABLES	UNADJUSTED ORDINAL LOGISTIC REGRESSION MODEL			ADJUSTED ORDINAL LOGISTIC REGRESSION MODEL		
	ODDS RATIO	95% (CI)	P VALUE	ODDS RATIO	95% CI	P VALUE
Sex						
Male	1			1		
Female	1.91	(1.42, 2.58)	<0.001	1.87	(1.38, 2.52)	<0.001
Age group in Months						
<6	1			1		
6-8	0.57	(0.22, 1.46)	0.25	0.56	(0.21, 1.48)	0.24
9-11	0.22	(0.10, 0.50)	<0.001	0.22	(0.09, 0.49)	<0.001
12-17	0.35	(0.18, 0.70)	0.003	0.38	(0.19, 0.74)	0.005
18-23	0.26	(0.13, 0.52)	<0.001	0.25	(0.13, 0.52)	<0.001
24-35	0.36	(0.19, 0.65)	0.002	0.36	(0.19, 0.71)	0.003
36-47	0.44	(0.23, 0.82)	0.01	0.45	(0.24, 0.83)	0.012
48-59	0.43	(0.21, 0.85)	0.01	0.40	(0.20, 0.81)	0.011
Toilet						
Non-Open defecation	1			1		
Open defecation	1.56	(1.31, 2.16)	0.007	1.40	(1.05, 2.11)	0.007
Handwashing Facility						
Handwashing Facility in HH	0.58	(0.38, 0.89)	0.014	0.71	(0.43, 1.17)	0.18

TABLE F 15: KEY BREASTFEEDING INDICATORS

INDICATORS	BASELINE		ENDLINE		TOTAL	
	COUNT	%	COUNT	%	COUNT	%
Ever Breastfed	262 _a	98.5%	283 _a	99.6%	545	99.1%
Exclusive breastfeeding (<6 months)*	38 _a	60.3%	41 _a	62.1%	71	61.2%
Age appropriate breastfeeding	171 _a	72.2%	225 _b	82.7%	396	77.8%

Each "a" subscript letter at the column "count" endline denotes a subset of survey time categories whose column proportions do not differ significantly from baseline at the .05 level. "b" at endline is statistically significant at the 0.5 test level.

TABLE F 16: OPEN DEFECACTION * SURVEY TIME CROSSTABULATIONS

OPEN DEFECACTION	BASELINE		ENDLINE	
	COUNT	%	COUNT	%
No	13,813 _a	19.7%	27,036 _b	40.4%
Yes	56,434 _a	80.3%	39,891 _b	59.6%
Total	70,247	100%	66,927	100%

Each “a” subscript letter at the column “count” endline denotes a subset of survey time categories whose column proportions do not differ significantly from baseline at the .05 level. “b” at endline is statistically significant at the 0.5 test level.

TABLE F 17: TOILET FACILITY AVAILABLE FOR USE IN THE HOUSEHOLD

TOILET FACILITY	BASELINE		ENDLINE	
	COUNT	%	COUNT	%
Unimproved	60,285 _a	85.8%	51,566 _b	77%
Improved	9,963 _a	14.2%	15,361 _b	23%
Total	70,248	100%	66,927	100%

Each “a” subscript letter at the column “count” endline denotes a subset of survey time categories whose column proportions do not differ significantly from baseline at the .05 level. “b” at endline is statistically significant at the 0.5 test level.

TABLE F 18: HANDWASHING FACILITY NEAR TOILETS

TOILET FACILITY	BASELINE		ENDLINE	
	COUNT	%	COUNT	%
No	69658 _a	99.2%	59,806 _b	89.4%
Yes	589 _a	0.8%	7122 _b	10.6%
Total	70,247	100%	66,928	100%

Each “a” subscript letter at endline denotes a subset of survey time categories whose column proportions do not differ significantly from each other at the .05 level. “b” at endline is statistically significant

TABLE F 19: ACCESS TO WATER SOURCES BY TYPE

WATER	BASELINE		ENDLINE	
	COUNT	%	COUNT	%
Unimproved	24,503 _a	35.1%	18,831 _b	28.1%
Improved	45,385 _a	64.9%	48,096 _b	71.9%
Total	69,888	100%	66,927	100%

Each “a” subscript letter at endline denotes a subset of survey time categories whose column proportions do not differ significantly from each other at the .05 level. “b” at endline is statistically significant

ANNEX G: REFERENCES

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ANNEX H: DATA COLLECTION INSTRUMENTS

EVALUATION QUESTION 1 AND 2 – QUALITATIVE INSTRUMENTS

KEY INFORMANT INTERVIEW (KII) AT THE COMMUNITY LEVEL - KII-01-CL

Key Informant Interview (KII) at the Community Level		
Region:	District:	Community:
Date:	Start Time:	End Time:
Place of Interview		
Name and Position of Respondent:		
Name of Interviewer		

1. Can you describe interventions focused on nutrition/ nutrition improvement that have been/are implemented in your community by USAID (RING, SPRING, W4H, LEAP, and, S4H) within the last three years? **Probe with examples if necessary: WASH, IYCF, nutrition, etc.**
2. What period (months) within the year does the community have limited food available (Lean season)? **Probe: Why**
3. What challenges does the community face in improving access to diverse foods for women and children?
4. In the last three years, have these interventions made it easier for community members to have access to healthy, quality and diverse foods in households for mothers and children? (e.g., consumption of animal and plant proteins, nuts and legumes, green leafy vegetables carbohydrates, fat, fibers, vitamins and minerals, and water)?
 - a. If yes, how?
 - i. What do you think has contributed the most to the increase in the amount and diversity of food consumed in the household? (Probe: What type of interventions?)
 - ii. Have these increases improved health status?
 - b. If no, why not?
5. In the last three years, what has changed (positive or negative) in households' food consumption during this period?
 - a. Why did this change occur?
 - b. Is this change sustainable? (will it last after intervention ends)
6. Are there any foods that households now have during the lean season that was not available in the lean season previously?
 - a. If yes, what?
7. In the last three years, do you think the USAID interventions have contributed to addressing household food consumption challenges during the peak of the lean season?
 - a. If yes, how?
 - b. If no, why not?
8. In the last three years, have these interventions improved the community's use of hygiene practices in the household?

- a. If yes, how?
 - (i) What has contributed to these increases?
 - (ii) Have these increases improved nutritional status? (How?)
 - (iii) Have these increases improved health status?
 1. If yes, How?
9. Have aspects of the lives of women and children under five been affected by improvements in water and sanitation?
 - a. If yes, how?
10. In the last three years, have these interventions led to improved access/obtainment of the listed household assets?
 - a. Latrines
 - b. Portable Water
 - c. Soaps
 - d. OTHERS
 - (i) What has contributed to these increases?
 - (ii) Have these increases in household assets had an effect on improving the diversity of food consumed in the household?
 1. If yes, How?
 - (iii) Have these increases in household assets improved health status?
 1. If yes, How?
11. Is the LEAP program implemented in your community? (***Skip to question 13 if no LEAP program***)
 - a. If yes, what benefits are available for community members who are enrolled unto the LEAP program?
 - b. On what do beneficiaries spend the money received from LEAP?
12. In what ways do stipends received from the LEAP program contribute toward improving
 - a. Household food consumption during the peak of the dry season
 - b. Household general expenses during the peak of the dry season
 - c. Household food consumption during the rainy season
 - d. Household general expenses during the rainy season
13. Do you think there has been any change in behavior or adoption of practices (e.g., open defecation, washing of hands at required times, exclusive breastfeeding, etc.) among the households since any of these interventions were implemented?
 - a. If yes, examples (Probe)?
 - b. If no, why not?
14. Which of the interventions, if any, have had the most benefit at the household level during the lean season in..... (Probe: why?)

- a. increasing household income,
 - b. increasing household food intake
 - c. diversifying household nutritional requirement (diet), and
 - d. Improving behaviors related to nutrition, WASH, and household decision?
15. Do you think any of the project's interventions will sustain after the project ends?
 - a. If yes, how? Why?
 - b. If no, why not?
16. What project activities, if any, need to continue after the project ends to improve nutrition in the communities?
 - a. If so, which ones and why?
 - b. If no, why?
17. Have any measures been put in place to ensure these interventions will continue?
 - a. If so, please explain.
 - b. If no, why not?
 - c. Do you have any recommendations on how to make these interventions more sustainable?
18. Do you have any recommendations or suggested changes for the USAID interventions to make them more successful?

FOCUS GROUP DISCUSSION (FGD) COMMUNITY LEVEL FGD-01-CL

Target 1: Community Level Focus Group Discussion		
Region:	District:	Community:
Date:	Start Time:	End Time:
Place of Interview:		
Name of Interviewer		

PARTICIPANT LIST

Name	Gender	Age	Consent (signature or Thumbprint)
1.			
2.			
3.			
4.			
5.			

1. Can you describe interventions focused on nutrition/ nutrition improvement that have been/are implemented in your community by USAID (RING, SPRING, W4H, LEAP, and, S4H) within the last three years?

- a. Probe with examples if necessary: WASH, IYCF, nutrition, etc.
2. What period (months) within the year do we have limited food available in households (Lean season)? **Probe: Why**
3. What challenges do the communities face in improving access to diverse foods for women and children?
4. In the last three years, have these interventions made it easier for community members to have access to healthy, quality and diverse foods in households for mothers and children? (e.g., consumption of animal and plant proteins, nuts and legumes, green leafy vegetables carbohydrates, fat, fibers, vitamins and minerals, and water)?
 - a. If yes, how?
 - i. What do you think has contributed the most to the increase in the amount and diversity of food consumed in the household? (Probe: What type of interventions?)
 - ii. Have these increases improved health status?
 - b. If no, why not?
5. In the last three years, what has changed (positive or negative) in households' food consumption during this period?
 - c. Why did this change occur?
 - d. Is this change sustainable? (will it last after intervention ends)
6. In the last three years, do you think the USAID intervention have contributed to addressing household food consumption challenges during the peak of the lean season?
 - c. If yes, how?
 - d. If no, why not?
7. In the last three years, have these interventions improved the community's use of hygiene practices in the household?
 - a. If yes, how?
 - (iv) What has contributed to these increases?
 - (v) Have these increases improved nutritional status? (How?)
 - (vi) Have these increases improved health status?
 - l. If yes, How?
8. Have aspects of the lives of women and children under five been affected by improvements in water and sanitation?
 - a. If yes, how?
9. In the last three years, have these interventions led to improved access/obtainment of the listed household assets?
 - a. Latrines
 - b. Portable Water
 - c. Soaps

- d. OTHERS
 - (iv) What has contributed to these increases?
 - (v) Have these increases in household assets had an effect on improving the diversity of food consumed in the household?
 - I. If yes, How?
 - (vi) Have these increases in household assets improved health status?
 - I. If yes, How?
10. Is the LEAP program implemented in your community?
- a. If Yes, In what ways do stipends received from the LEAP program contribute toward improving
 - i. Household food consumption during the peak of the dry season (February – March)
 - ii. Household general expenses during the peak of the dry season (February – March)
 - iii. Household food consumption during the rainy season
 - iv. Household general expenses during the rainy season
11. Has anyone here adopted any attitudes, behavior, activities/ interventions from the USAID projects?
- a. If yes, what has been adopted?
 - i. Have other households adopted these too?
 - ii. How are households and the community going to maintain the adopted culture when the project comes to an end?
 - b. If no, why not?
12. Which of the interventions have had the most benefit at the household level during the current dry season: (Probe: why?)
- e. increase household income,
 - f. increase household food intake
 - g. diversify household nutritional requirement (diet), and
 - h. Improve behaviors related to nutrition, WASH, and household decision?
13. Overall, how have all these interventions by USAID (RING, SPRING, W4H, LEAP)
- a. Increased household income?
 - b. Diversified household diet?
 - c. Improve behaviors related to nutrition and WASH?
14. What other challenges do the communities face in improving physical well-being and general health situation of women and children?
15. What other specific interventions do women in your community need to increase household income, to diversify household diet, and to improve behaviors related to nutrition, WASH, and governance activities?

16. Do you think any of the benefits we have discussed throughout our discussion will continue after the project ends?
 - b. Why or why not?
17. Do you have any recommendations on maintaining the gains of USAID's interventions?

KEY INFORMANT INTERVIEW (KII) DISTRICT LEVEL - KII-03-DHW

District Level - Key Informant Interview (KII)		
Region:	District:	Community:
Date:	Start Time:	End Time:
Place of Interview		
Name and Position of Respondent:		
Name of Interviewer		

1. Can you describe the interventions focused on nutrition/nutrition improvement that have been/are implemented by USAID (RING, SPRING, W4H, LEAP, and, S4H) within the last three years?
2. What role did the DHMT/your facility your institution play in the implementation of these interventions?
3. What main challenges do the communities face in improving nutritional status among women and children?
4. Please explain what interventions you work on that aim to improve the nutritional status of women and children (e.g., quality food access, hygiene education, WASH)?
5. In the last three years, has access to diverse, nutritional foods in the targeted communities increased?
 - a. If yes, what has increased?
 - i. What has contributed to these increases?
 - ii. Have these increases improved nutritional status?
 1. If yes, How? (examples)
 - iii. Have these increases improved health status?
 1. If yes, How? (examples)
 - b. If No, why?
6. In the last three years, do you think there have been improvements in hygiene practices in the targeted communities?
 - a. If yes, how?
 - i. What has contributed to these increases?
 - ii. Have these increases improved nutritional status?
 1. If yes, How? (examples)
 - iii. Have these increases improved health status?
 1. If yes, How? (examples)
 - b. If No, why?
7. In the last three years, do you think there have been increases in household assets, such as latrines, potable water, and handwashing soap in the targeted communities?

- a. If yes, what specific assets?
 - i. What has contributed to these increases?
 - ii. Have these increases in household assets improved nutritional status?
 - I. If yes, How? (examples)
 - iii. Have these increases in household assets improved health status?
 - I. If yes, How? (examples)
 - b. If No, why?
- 8. In the last three years, what has changed in households' food consumption during this period?
 - a. Why did this change occur?
 - b. Is the change sustainable?
- 9. Have the community level interventions contributed to addressing household food consumption challenges during the peak of the Lean season?
 - a. If yes, how?
 - b. If no, please explain?
- 10. Which of the interventions have had the most benefit at the household level during the last "Lean season" in (Probe: why?)
 - a. increasing household income,
 - b. increasing household food intake
 - c. diversifying household nutritional requirement (diet), and Improving behaviors
- 11. At the community level, do you think there has been any change in behavior or adoption of practices (e.g., open defecation, washing of hands at required times, exclusive breastfeeding, etc.) among the households since any of these interventions were implemented?
 - c. If yes, examples (Probe)?
 - d. If no, why not?
- 12. In the last three years, overall have you seen any changes (positive or negative) in the nutritional status of women and children in your district?
 - a. If yes, what changes have you seen? And why?
 - i. Where have you seen these changes happen? (E.g., specific communities, subdistricts, the whole district, etc.)
 - b. If not, can you please explain why?
- 13. What do you think has contributed the most to the increase in the nutritional status? (Probe: What type of interventions?)
 - a. Why?
- 14. In the last three years, have you seen a difference in the nutritional status of targeted USAID intervention communities versus untargeted communities?
 - a. Please explain.

15. In the last three years, have you seen a difference in the overall health status of the targeted communities versus untargeted communities?
 - a. Please explain.
16. Do you think any of the project's interventions will sustain after the project ends?
 - a. If yes, how? Why?
 - b. If no, why not?
 - c. Do you have any recommendations on how to make these interventions more sustainable?
17. What project activities, if any, need to continue after the project ends to improve nutrition in the communities?
 - a. If so, which ones and why?
 - b. If no, why?
18. Have any measures been put in place to ensure these interventions will continue?
 - a. If so, please explain.
 - b. If no, why not?
 - c. Do you have any recommendations on how to make these interventions more sustainable?
19. Do you have any recommendations or suggested changes for the USAID interventions to make them more successful?

HOUSEHOLD QUESTIONNAIRE

MODULE I: HOUSEHOLD (HH) IDENTIFICATION

NOTE TO ENUMERATOR: Within each Enumeration Area, your team will interview 20 households (HH). Locate and interview the list of HH assigned to you by your supervisor. If after one attempt you are unsuccessful in obtaining audience, report the case to your supervisor for the next line of action. All applicable questionnaire sections should be asked of all appropriate HH members. Pay attention to the skip patterns and follow instructions. Fill out the consent form on page 3. If the HH agrees to continue with the survey, continue to complete the questionnaire until the respondent refuses to continue, then stop or move to another respondent/modules as appropriate.

HH Identification		Code		Enumerator Code		
I.01. Region:				I.11 GPS Coordinates of HH		
I.02. District:				HH latitude		HH longitude
I.03 Supervision Areas (SA) Number						
I.04. Community/Village Name:				I.11b. LEAP Household		Yes ☐ No ☐
I.05. Enumeration Area (EA) Number				I.12 Visit		Date DD / MM Interview start and end time (24HR)
I.06. HH Number				Visit I		/ START: HH__MM__ END: HH__MM__
I.07. Name of primary respondent (code from roster in Module 2): Surname, First Name:				Visit II		/ START: HH__MM__ END: HH__MM__
I.08. Name of secondary respondent (code from roster in Module 2): Surname, First Name:				Visit III		/ START: HH__MM__ END: HH__MM__
I.09. Main religion of HH head (See codes below):				I.13. Code of Enumerator:		
I.10. Main ethnic group of the HH head (enter code):				I.14. Code of Supervisor:		
I.11 Main occupation by HH head						

CODES FOR QUESTIONS IN TABLE ABOVE

I.01 Region Codes	I.02: Districts Codes in Northern Region		
08 - Northern Region	Chereponi - 01	Kpandai - 08	Sagnerigu - 15
09 - Upper East Region	Central Gonja - 02	Kumbungu - 09	Savelugu/Nanton - 16
	East Gonja - 03	Mamprusi East - 10	Tamale Metro - 17
	North Gonja - 04	Mion - 11	Tatali/Sanguli - 18
	West Gonja - 05	Nanumba North - 12	Tolon - 19
	Gushegu - 06	Nanumba South - 13	Yendi Muni - 20
	Karaga - 07	Saboba - 14	Zabzugu - 21
I.09: Main Religion of HH Head			I.10: Main ethnic Group of HH Head
No Religion Catholic Protestant (Anglican, Lutheran, Presbyterian, Methodist etc.) Pentecostal/Charismatic Other Christian Islam Ahmadi Traditionalist Other (specify)			Akan Ga-Dangme Ewe Guan Mole-Dagbani Grusi Mande Gurma Other
I.11 Main Occupation of HH HEAD			
Unemployed Farmer Trader Store owner Unskilled labourer Skilled labourer/Artisans			Factory worker Professional, e.g., teacher, doctor, engineer Military Housewife (unpaid) Schooling/under apprenticeship Other _____

MODULE 1 CONTINUED: INFORMED CONSENT

TO THE ENUMERATOR: Read out the Informed Consent in full before completing this section of Module 1. Ask each eligible respondent to sign the consent form.

1.16. Do you [NAME] agree to participate in the study?

Note to Enumerator: A secondary respondent is the female with the most decision making authority in the HH, assuming that the male with most decision making authority is primary respondent.

Respondent Number (from HH Listing)	Type of Respondent	Name of Respondent (Surname, First Name as in HH Roster)	Status of Participation	Signature Mark	Cell Phone Number
			1 - Yes (Participate) 2 - No>>End Survey		
	Primary Male Respondent				
	Primary Female Respondent				
	Other Respondent 1				
	Other Respondent 2				
	Other Respondent 3				

I_____, the enumerator responsible for the interview taking place on____, 2018 certify that I have read the above statement to the respondent(s) 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.

Module 2: Household (HH) Demographics (HH Roster)

Instruction to Enumerators: Ask these questions about all HH members. Ask the primary male and or primary female respondent, whoever is most knowledgeable about the age, completed education, and other characteristics of HH members.

Enumerator Reads: First, we would like to ask you about each member of your HH. Please list the names of everyone considered to be a member of this HH, starting with you (the primary respondent), followed by the secondary respondent and all other person:

ID Code	Name of HH member? [start with primary male respondent, continue with the primary female respondent, if applicable, and other members]	What is [NAME's] sex? I = M	What is [NAME's] relationship to the primary	What is [NAME's] age? If < 2 yrs enter # of months If <3 yrs , skip 2.08 to 2.12 and start a new HH	What is [NAME's] marital status?	Can [NAME] read and write in English?	Can [NAME] read and write in	Has [NAME] ever attended school? I = Yes	Is [NAME] currently attending school? I = Yes	What is the highest grade education
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	Surname	First Name	Popular Name	2 = F	male respondent?	member Number	Unit			any other language ?	2= No>>next member	2 = No	completed by [NAME]? in number.
	2.01	2.02	2.03	2.04	2.05	2.06	2.07	2.08	2.09	2.09a	2.10	2.11	2.12
01													
02													
03													

Codes for Questions in Phase I - Module 2: HH Demographics

2.05: Relationship to primary respondent	2.07: Unit	2.08: Marital Status	2.09: Literacy	2.09a: Can read and write in local language?	2.12: Education level
1. Primary respondent 2. Spouse (Wife / Husband) 3. Child (Son/daughter) 4. Parent/Parent in-law 5. Son/Daughter in-law 6. Grandchild 7. Brother/Sister 8. Step child 9. Foster child 0. Other relative 1. Non-relative	1. Months 2. Year	Never married/Single Informal/consensual union/living together Married Separated Divorced Widowed	1. Cannot read and write 2. Can sign (write) only 3. Can read only 4. Can read and write	None Can read and write Arabic Can read and write in a local language	1 - None 2 - MLSC 3 - BECE 4 - Voc/Comm 5 - Teacher Tra. A 6 - Teacher Post Sec 7 - GCE O Level 8 - SSCE 9 - GCE A Level 10 - Tech/Prof Cert 11 - Tech/Prof Dip 12 - HND 13 - Bachelors 14 - Masters 15 - Doctorate 16 - Primary 17 - Other

MODULE 3: CHILDREN'S MINIMUM ACCEPTABLE DIET - 6 TO 23 MONTHS

Enumerator Instructions: Ask about each Child **aged 6-23 Months** in HH. Check to see if interview consent has already been given on the cover sheet. If it has not, obtain permission from EACH mother/caregiver of the child. Consent from the caregivers should cover all children 0-23 months in the HH.

Enumerator read to respondent: We would like to ask your permission to ask questions about your children and their diet. Your participation is voluntary and you may stop at any time. Be assured that your responses will be kept confidential.

Mother or Primary Caregiver's ID (from HH Roster)	Respondent (CAREGIVER'S) Name (Surname, First Name as in HH Roster)	Do you agree to participate in the survey? 1 = Yes ➡ Continue with questions 2 = No ➡ STOP survey for this woman, move to next women, if none END MODULE	Signature/Thumbprint

Before moving forward, Enumerator must verify that you are speaking with the correct respondent by: 1). Checking that the respondent's name is the same as the name of caregiver listed in the HH roster above; and 2). Checking that the respondent is one largely responsible for child feeding in the HH. If the person you are speaking WITH IS NOT that individual, ask to speak with the correct respondent. Note: Consent must be given by new person. **Is this individual the correct respondent for this module? Yes/No**

No	Question	Response Code	Response				
			Child I	Child II	Child III	Child IV	Child V
3.01	Mother/Caregiver's ID code from the HH roster						
3.02	Child's ID code from the HH roster						
3.03	Child's sex from the HH roster	1 - Male 2 - Female					
3.04A	What is (CHILD'S NAME) full date of birth (dd/mm/yyyy)? If the respondent does not know the exact birth date, ask for (Child's Name) health/vaccination card and record the correct birth date. If the exact day of birth is unknown, assume the 15 th of the month as day of birth.	DD					
		MM					
		YYYY					
3.05	How old was (CHILD'S NAME) at his/her last birthday? RECORD AGE IN COMPLETED YEARS.	0 – 5 months 6 – 11 months 12 – 23 months 24 – 59 months					

No	Question	Response Code	Response				
			Child I	Child II	Child III	Child IV	Child V
3.06	How many months old is (CHILD'S NAME)? RECORD AGE IN COMPLETED MONTHS. NOTE TO ENUMERATOR: Please refer to the Calendar tool for determining eligibility for EXBF and MAD to determine the number of months for the child.	Months					
3.07	ENUMERATOR, CHECK QUESTIONS 3.04, 3.05 AND 3.06 TO VERIFY CONSISTENCY. If the answer is 'NO', resolve any inconsistencies. If the birth date was recorded on a health card, this may be used as the correct data source.	1 - Yes 2 - No					
3.07A	Is the year recorded in 3.04A consistent with age in years recorded in 3.05 ?	1 - Yes 2 - No					
3.07B	Are year and month of birth recorded in 3.04A consistent with age in months recorded in 3.06 ?	1 - Yes 2 - No					
3.08	Check question 3.06 . Is the child equal to or older than 6 months and less than 24 months? NOTE TO ENUMERATOR: Please refer to the Calendar tool for determining eligibility for EXBF and MAD to determine the number of months for the child.	1 - Yes >> continue with module 2 - No >> end module 98 - DK/ NA >> end module					

Instruction to Enumerator on Consumption Questions:

Ask these questions of each caregiver for the children 6 – 23 months old under his or her care. Accurate responses to this question may require probing. Use the probes to elicit a more thorough listing of what the respondent ate yesterday.

1. Think about when you first woke up yesterday. Did your child eat anything at that time? If YES: Please tell me everything your child ate at that time. PROBE: Anything else? Until respondent says nothing else. If NO, continue to question 2 below
2. What did your child do after that? Did your child eat anything at that time? If YES: Please tell me everything your child ate at that time. PROBE: Anything else? Until respondent says nothing else. Repeat question 2 above until respondent says the child went to sleep until the next day. If respondent mentions mixed dishes like a PORRIDGE, sauce or stew, probe:
3. What ingredients were in that (MIXED DISH)? PROBE: Anything else? Until respondent says nothing else.

As the respondent recalls foods, tick the corresponding food and enter '1' in the column next to the food group for the child being interviewed. If the food is not listed in any of the food groups below, write the food in **3.43** the box labeled 'other foods'. If foods are used in small amounts for seasoning or as a condiment, count them under **3.40** Condiments.

Once the respondent finishes recalling foods eaten, read each food group where '1' was not indicated, ask the following question and enter '1' if respondent says yes, '2' if no and '98' if don't know: Yesterday during the day or night, did your child drink/eat any (FOOD GROUP ITEMS with initial

No	Question	Response Code	Response				
			Child I	Child II	Child III	Child IV	Child V
response as 2)?							
Breastfeeding Questions							
3.09a	Has <u>(CHILD'S NAME)</u> ever been breastfed?	1 - Yes 2 - No >> skip to 3.11 98 - DK/NA >> skip to 3.11					
3.09b	Was <u>(CHILD'S NAME)</u> breastfed yesterday during the day, and/or at night?	1 - Yes 2 - No 98 - DK/NA					
3.09c	Was <u>(CHILD'S NAME)</u> exclusively breastfed in the past from 0 -5 months?	1 - Yes >> skip to 3.10 2 - No 98 - DK/NA					
3.09d	Why was <u>(CHILD'S NAME)</u> not exclusively breastfed from 0 - 5 months?	1= Infant required water to quench thirst 2=Infant required water to stop hiccoughs 3=Mother was forced to return to full-time work. causing a shorter duration of breastfeeding 4= Family Members influenced mother to introduce meal before 6 months 5=Other (Specify) 98 - DK/NA					
3.10	<u>NOTE TO ENUMERATOR:</u> Babies can be fed breast milk in different ways. For example by spoon, cup or bottle or by another woman's breastmilk. This occurs when the mother is away from her child. Now, ask the caregiver <u>the ways in which the child was breastfed yesterday.</u> <u>Question to Caregiver:</u> If you are not with (CHILD's NAME) in which way(s) was <u>(CHILD'S NAME)</u> fed breast milk yesterday during the day and/or at night? <u>Enumerator Instruction:</u> Record "Yes" if the caregiver mentions child was breastfed any other way(s) apart from when the mother put her breast to the child.	1 – Spoon and Cup 2 – Bottle 3 - Breastfed by another woman 98 - DK/NA					

No	Question	Response Code	Response				
			Child I	Child II	Child III	Child IV	Child V
Enumerator Instruction: Now ask about some medicines and vitamins that are sometimes given to infants.							
3.11	Did (CHILD'S NAME) receive any medicines yesterday during the day and or at night?	1 - Yes 2 - No >> skip to 3.13 98 - DK/NA >> skip to 3.13					
3.12A	Which medicines did (CHILD'S NAME) receive yesterday during the day and or at night? (Circle all that apply)	1 = Vitamin drops 2 = ORS 3 = Malaria medication 4 = Antibiotics 5 = Traditional herbs 6=deworming 7 = Other (specify)____ 98 = - DK/NA					
3.12B	Where did you get the medicine from?	1=From Clinic 2=From CHO during home visits 3=From Caregivers' home store (first aid kit) 4=From Herbalist 5= from family member /neighbor/friend 6=Other (Specify)					

No	Question	Response Code	Response				
			Child I	Child II	Child III	Child IV	Child V
ENUMERATOR ASK: What liquids or liquid foods did <u>(CHILD’S NAME)</u> eat yesterday during the day and/or at night? Tick as the caregiver mentions the liquids or liquid foods <u>(CHILD’S NAME)</u> took, and keep probing until the says nothing more or <u>(CHILD’S NAME) WAS SAID TO GO TO BED.</u>							
3.13	Plain water?	1 - Yes 2 - No 98 - DK/NA					
3.14	Infant formula such as weanie mix or commercially produced infant formula?	1 - Yes 2 - No >> skip to 3.16 98 - DK/NA >> skip to 3.16					
3.14a	How many times (number) yesterday during the day and/or at night did <u>(CHILD’S NAME)</u> consume any formula?	98 - Don’t know					

No	Question	Response Code	Response				
			Child I	Child II	Child III	Child IV	Child V
3.15	Milk such as tinned, powdered, or fresh animal milk?	1 - Yes 2 - No >> skip to 3.18 98 - DK/NA >> skip to 3.18					
3.15a	How many times (number) yesterday during the day and/or at night did (CHILD'S NAME) consume any milk?	98=- Don't know					
3.16	Consumed Fresh Juice or Canned juice drinks?	1 - Yes 2 - No 98 - DK/NA					
3.17	Consumed Clear broth?						
3.18	Consumed Yogurt?	1 - Yes 2 - No >> skip to 3.22 98 - DK/NA >> skip to 3.22					
3.18a	How many times (number) yesterday during the day and/or at night did (CHILD'S NAME) consume any yogurt?	98=- Don't know					
3.19	Thin porridge?	1 - Yes 2 - No 98 - DK/NA					
3.20	Any other liquids. Specify						
ENUMERATOR ASK: Now I would like to ask you about semi solid foods that your child ate yesterday during the day and/or at night. I am interested in whether they ate the item even if it was combined with other foods. Please describe everything he or she ate yesterday during the day and/or night, whether at home or outside the home. Enumerators please probe until respondent says child went to sleep at night.							
3.21	Maize or maize products						
3.22	Rice or Rice Products						
3.23	Bread, rice, noodles, porridge or other foods made from grains (kenkey, banku, koko, tuo zaafi, akple)	1 - Yes 2 - No 98 - DK/NA					
3.24	Pumpkin, red or yellow yams, carrots, sweet potatoes that are yellow or orange inside	Response code 1 - Yes 2 - No 98 - DK/NA					
3.25	White potatoes, white yams, manioc, cassava, cocoyam, fufu or any other foods made from roots, tubers or plantain						
3.26	Any dark green, leafy vegetables (kontomire, aleefu, ayoyo, kale, cassava leaves)						
3.27	Ripe mangoes, pawpaw						

No	Question	Response Code	Response				
			Child I	Child II	Child III	Child IV	Child V
3.28	Any other fruits or vegetables [e.g., bananas, avocados, tomatoes, oranges, apples]						
3.29	Any meat, such as beef, pork, lamb, goat, chicken, or duck						
3.30	Eggs						
3.31	Fresh or dried fish or shellfish [e.g., prawn, lobster]						
3.32	Soybean or Soybean products						
3.33	Any foods made from beans, peas, lentils, nuts, or seeds						
3.34	yogurt, cheese, or other milk products						
3.35	Any oil, fats, or butter, or foods made with any of these						
3.36	Any sugary foods such as chocolates, sweets, candies, pastries, cakes, or biscuits						
3.37	Condiments for flavor, such as peppers, spices, herbs or fish powder						
3.38	Crabs, snails or insects						
3.39	Foods made with red palm oil, red palm nut, or red palm nut pulp sauce						
3.40	OTHER FOODS: PLEASE WRITE DOWN OTHER FOODS IN THIS BOX THAT RESPONDENT MENTIONED BUT ARE NOT INCLUDED IN THE FOOD GROUPS LISTED ABOVE:						
	CHECK CATEGORIES 3.21-3.40	If at least one 'YES' or all 'DK/NA'>>3.42 If all 'NO'>>3.41					
3.41	Did (CHILD'S NAME) eat any solid, semi-solid, or soft foods yesterday during the day and/or at night? IF 'YES' PROBE: What kind of solid, semi- solid, or soft foods did (CHILD'S NAME) eat?	Yes = 1 >> go back to 3.21-3.41 and record foods eaten. Then continue with 3.42 No = 2 >> end module DK/NA = 98 >> end module					
3.42	How many times (number) did (CHILD'S NAME) eat solid, semi-solid, or soft foods other than liquids yesterday during the day and/or at night?	98 - Don't know					

MODULE 4: EXCLUSIVE BREASTFEEDING FOR CHILDREN 0 - 5 MONTHS

Instruction to Enumerator: Ask of Mother or caregivers of each child aged 0-5 months (up to end of five months old, less than six months) in HH. Please verify that you are speaking with the correct respondent by: 1). Checking that the respondent's name is the same as the name of caregiver listed in the HH roster above; and 2). Checking that the respondent is the primary caregiver (which is usually the mother) of **(NAME)**. If the person you are speaking WITH IS NOT that individual, ask to speak with the correct respondent. **Is this individual the correct respondent for this module?**
Yes/No

No	Question	Response Code	Response				
			Child I	Child II	Child III	Child IV	Child V
4.01	Mother/caregiver ID code from the HH roster						
4.02	Child's ID code from the HH roster						
4.03	Child's sex from the HH roster	1 - Male 2 - Female					
4.04	What is (CHILD'S NAME) full date of birth (dd/mm/yyyy)? If the respondent does not know the exact birth date, ask for (Child's Name) health/vaccination card and record the correct birth date. If the exact day of birth is unknown, assume the 15 th of the month as day of birth.	DD					
		MM					
		YYYY					
4.05	How many months old is (NAME) ? RECORD AGE IN COMPLETED MONTHS NOTE TO ENUMERATOR: Please refer to the Calendar tool for determining eligibility for EXBF and MAD to determine the number of months for the child.	Months					
4.06	CHECK QUESTIONS 4.04 AND 4.05 TO VERIFY CONSISTENCY If the answer to 4.07 or 4.08 is 'NO', resolve any inconsistencies. If the birth date was recorded on a health card, this may be used as the correct data source.	1 - Yes 2 - No					

No	Question	Response Code	Response				
			Child I	Child II	Child III	Child IV	Child V
4.07	Are year and month of birth recorded in 4.04 consistent with age in months recorded in 4.05?	1 - Yes 2 - No					
4.08	Check question 4.06 and 4.07 is the child less than 6 months (i.e. 0-5 months)?	1 - Yes >> continue 2 - No >> end module 98 - DK >> end module					
Instruction to Enumerator on Consumption Questions: Ask these questions of each caregiver for the children 0 – 5 months old under his or her care. Accurate responses to this question may require probing. Use the probes to elicit a more thorough listing of what the respondent ate yesterday. 1. Think about when you first woke up yesterday. Did your child eat anything at that time? If YES: Please tell me everything your child ate at that time. PROBE: Anything else? Until respondent says nothing else. If NO, continue to question 2 below 2. What did your child do after that? Did your child eat anything at that time? If YES: Please tell me everything your child ate at that time. PROBE: Anything else? Until respondent says nothing else. Repeat question 2 above until respondent says the child went to sleep until the next day. If respondent mentions mixed dishes like a PORRIDGE, sauce or stew, probe: 3. What ingredients were in that (MIXED DISH)? PROBE: Anything else? Until respondent says nothing else. As the respondent recalls foods, tick the corresponding food and enter '1' in the column next to the food group for the child being interviewed. If the food is not listed in any of the food groups below, write the food in 4.39 the box labeled 'other foods'. If foods are used in small amounts for seasoning or as a condiment, count them under 4.36 Condiments. Once the respondent finishes recalling foods eaten, read each food group where '1' was not indicated, ask the following question and enter '1' if respondent says yes, '2' if no and '98' if don't know: Yesterday during the day or night, did your child drink/eat any (FOOD GROUP ITEMS with initial response as 2)?							
Breastfeeding questions							
4.09	Has (CHILD'S NAME) ever been breastfed?	1 - Yes 2 - No >> skip to 4.12 98 - DK/NA >> skip to 4.12					
4.10	Was (CHILD'S NAME) breastfed yesterday during the day and/or at night?	1 - Yes >> skip to 4.12 2 - No 98 - DK/NA					
4.11	NOTE TO ENUMERATOR: Babies can be fed breast milk in different ways. For example by spoon, cup or bottle or by another woman's breastmilk. This occurs when the mother is away from her child. Now, ask the caregiver the ways in which the child was breastfed yesterday.	1 - Yes 2 - No 98 - DK/NA					

No	Question	Response Code	Response				
			Child I	Child II	Child III	Child IV	Child V
	Question to Caregiver: In which way(s) was (CHILD'S NAME) fed breast milk yesterday during the day and/or at night?	1 – Spoon and Cup 2 – Bottle 3 - Breastfed by another woman 98 - DK/NA					
Enumerator Instruction: Now ask about some medicines and vitamins that are sometimes given to infants.							
4.12	Did (CHILD'S NAME) receive any medicines yesterday during the day and or at night?	1 - Yes 2 - No >> skip to 4.14 98 - DK/NA >> skip to 3.14					
4.13A	If yes to 4.12, which medicines did (CHILD'S NAME) receive yesterday during the day and or at night? (Circle all that apply)	1 = Vitamin drops 2 = ORS 3 = Malaria medication 4=Antibiotics 5=Traditional herbs 6 = Deworming 7 = Other (specify) 98 = - DK/NA					
4.13B	How did you receive the medicine or Vitamins?	1=From Clinic 2=From CHO during home visits 3=From Caregivers' home store (first aid kit) 4=From Herbalist 5= Family member /neighbor/friend 6= Other (Specify)					
4.14	Plain water?	1 – Yes, - No 98 - DK/NA					
4.15	Infant formula such as weanie mix or produced infant formula?						
4.15a	How many times (number) yesterday during the day and/or at night did (CHILD'S NAME) consume any infant formula?						
4.16	Consumed Milk such as tinned, powdered, or fresh animal milk?	1 – Yes, - No 98 - DK/NA					

No	Question	Response Code	Response				
			Child I	Child II	Child III	Child IV	Child V
4.16a	How many times (number) yesterday during the day and/or at night did (CHILD'S NAME) consume any milk?						
4.17	Consumed Fresh Juice or Canned juice drinks?	1 – Yes, - No, 98 - DK/NA					
4.17a	How many times (number) yesterday during the day and/or at night did (CHILD'S NAME) consume any juice or juice drink?						
4.18	Consumed Clear broth?	1 – Yes, - No 98 - DK/NA					
4.19	Consumed Yogurt?	1 – Yes, - No 98 - DK/NA					
4.19a	How many times (number) yesterday during the day and/or at night did (CHILD'S NAME) consume any yogurt?						
4.20	Thin porridge?	1 – Yes, - No 98 - DK/NA					
4.21	Any other liquids? Specify:						
ENUMERATOR ASK: Now I would like to ask you about solid foods that your child ate yesterday during the day and/or at night. I am interested in whether they ate the item even if it was combined with other foods. Please describe everything he or she ate yesterday during the day and/or night, whether at home or outside the home. Enumerators please probe until respondent says child went to sleep at night.							
4.22	Bread, rice, noodles, porridge or other foods made from grains (kenkey, banku, koko, tuo zaafi, akple)	1 - Yes 2 - No 98 - DK/NA					
4.23	Pumpkin, red or yellow yams, carrots, orange flesh sweet potatoes that are yellow or orange inside?						
4.24	White potatoes, white yams, cassava, cocoyam, fufu or any other foods made from roots, tubers or plantain						
4.25	Any dark green, leafy vegetables (kontomire, aleefu, ayoyo, kale, cassava leaves)						
4.26	Ripe mangoes, pawpaw						
4.27	Any other fruits or vegetables [e.g., bananas, avocados, tomatoes, oranges, apples]						

No	Question	Response Code	Response				
			Child I	Child II	Child III	Child IV	Child V
4.28	Liver, kidney, heart or other organ meats	1 - Yes 2 - No 98 - DK/NA					
4.29	Any meat, such as beef, pork, lamb, goat, chicken, or duck						
4.30	Eggs						
4.31	Fresh or dried fish or shellfish [e.g., prawn, lobster]						
4.32	Any foods made from beans, peas, lentils, nuts, or seeds						
4.33	Cheese or other milk products						
4.34	Any oil, fats, or butter, or foods made with any of these						
4.35	Any sugary foods such as chocolates, sweets, candies, pastries, cakes, or biscuits						
4.36	Condiments for flavor, such as chilies, spices, herbs or fish powder						
4.37	Grabs, snails, Lizard or insects						
4.38	Foods made with red palm oil, red palm nut, or red palm nut pulp sauce						
4.39	OTHER FOODS: PLEASE WRITE DOWN OTHER FOODS IN THIS BOX THAT RESPONDENT MENTIONED BUT ARE NOT IN THE LIST BELOW:	1 - Yes 2 - No 98 - DK/NA					
4.40	Check Questions 4.22– 4.38. If all 'NO' GO TO 4.41 If at least one 'YES' or all 'DK' GO TO 4.42						
4.41	Did (CHILD'S NAME) eat any solid, semi-solid, or soft foods yesterday during the day and/or at night? IF 'YES' PROBE: What kind of solid, semi-solid, or soft foods did (CHILD'S NAME) eat?	1 - Yes >>go back to 4.22-4.38 and record foods eaten then continue with 4.41 2 - No >> end module 98 - DK/NA >> end module					
4.42	How many times did (CHILD'S NAME) eat solid, semi-solid, or soft foods other than liquids yesterday during the day or at night?						
	End of Module						

MODULE 5: ANTHROPOMETRY FOR CHILDREN UNDER 5 YEARS (0 - 59 MONTHS)

Instruction to Enumerator: Apply to each child aged 0 – 59 months in the HH.

Child's ID # (from roster)	Name of Child	Caregiver's ID # (from roster)	Parent Agree to weigh and Measure child? Yes = 1 No = 2 >> End Module	Child Sex 1 - Male 2 - Female	In what day, month and year was <CHILD'S NAME> born?			Child's Age (in Months)	Child less than 60 months? 1 - Yes 2 - No>> End Module 98 - DK/NA >> End Module	Child's Weight (in Kilograms)	Child Height (in Cm) Children < 24 mons measure lying down; children >= 24 mons measure standing up (Measure height and record twice)	Child Edema Yes = 1 No = 2
					Day (DD)	Month (MM)	Year (YYYY)					

MODULE 6: KNOWLEDGE, ATTITUDES AND SKILLS REGARDING NUTRITION PRACTICES AND BEHAVIOURS

Instruction to Enumerator: This module focuses on mothers and/or caregivers in the HH with children under 5 years (0 - 59 months). Target respondents for this module are caregivers of the youngest child (must be aged 0-59 months). Ask these questions to all mothers or caregivers whose children have been interviewed under modules 3, 4 and 5. Ensure that respondents provide independent answers to these questions without any outside influence. Where necessary, excuse other mothers/caregivers and conduct this section of the interview.

Note: Enumerator now ask: I would like to ask you questions about your knowledge, attitude and practice toward Infant and Young Child Feeding (IYCF) and behavior change messaging. Please be free with your answers.

No.	Question	Response Code	Response of Caregiver I	Caregiver I's ID # (from roster)	Response of Caregiver II	Caregiver II's ID # (from roster)	Response of Caregiver III	Caregiver III's ID # (from roster)
Knowledge, Attitudes and Practices on Breastfeeding and Consumption								
6.01	I would like to ask you about children and child care. Have you ever been pregnant in the past 5 years?	1 - Yes 2 - No >>> skip to 6.17						
6.02	When was the last time you gave birth (even if your child is no longer living)?	Record the last year child was born	____/____ MM/YY		____/____ MM/YY		____/____ MM/YY	____/____ MM/YY
6.03	Did you ever breastfeed this youngest child?	- Yes >> skip 6.04 and go to 6.05 - No >>> Answer 6.04 and & skip to 6.17						
6.04	Why did you not breastfeed your youngest child? Enumerator: Write the reason in the space provided	Child I:						
		Child II:						
		Child III:						
6.05	How long after birth did you first put your youngest baby to the breast?	000 = Immediately (within the first hour) 1 = ...Hours >>skip to 6.07 2 = ...Days >>skip to 6.07						
6.06	Why did you breastfeed your youngest child immediately upon birth? Enumerator: Write the reason in the space provided (Skip to 6.08)	Child I:						
		Child II:						
		Child III:						
6.07	Why did you have to wait for hours	Child I:						

No.	Question	Response Code	Response of Caregiver I	Caregiver I's ID # (from roster)	Response of Caregiver II	Caregiver II's ID # (from roster)	Response of Caregiver III	Caregiver III's ID # (from roster)
	later before breastfeeding your youngest child? Enumerator: Write the reason in the space provided	Child II: Child III:						
6.08	How many months did you feed your youngest child with only breast milk?	State # of months. If less than 6 months skip to 6.10	Child I Child 2 Child 3					
6.09	Why did you breastfeed exclusively for the first 6 months? Enumerator: Write the reason in the space provided	Child I: Child II: Child III:						
6.10	Why did you not exclusively breastfeed your child for 6 months?	Child I: Child II: Child III:						
6.11	How many months are you supposed to stop breastfeeding your child? (Full age breastfeeding)	Enter in number of months						
6.12	When your child is sick, do you continue to breastfeed him/her?	1 = Yes 2 = No >>Skip to 6.14						
6.13	Why do you continue to breastfeed a sick child							
6.14	Sometimes babies are fed breastmilk in different ways, for example by spoon, cup or bottle. Have you ever expressed breastmilk to feed your baby in any of these ways?	1 = Yes 2 = No >>> skip to 6.17						
6.15	How do you store expressed breastmilk?	State the ways it is stored (Text)						
6.16	Which device or container do you use in feeding your [child] expressed breastmilk?	State container Text						
6.17	How do you know or detect if your child is hungry?	State hunger cues Text						

No.	Question	Response Code	Response of Caregiver I	Caregiver I's ID # (from roster)	Response of Caregiver II	Caregiver II's ID # (from roster)	Response of Caregiver III	Caregiver III's ID # (from roster)
6.18	What do you do when your child is hungry?	1 = Ignore baby, continue work, 2 = Immediately attends to baby 3 = Other Specify						
6.19	At what month did you start feeding your youngest child with complementary foods?	State # of months (If NA skip to 6.24)						
6.20	What kinds of food did you give to you youngest child when you introduced [child] to complimentary foods?	1 = Liquid foods only 2 = Solid foods only 3 = Semi-solid foods						
6.21	Did you vary the complementary foods you introduced to your child?	1 = Yes, 2 = No >> skip to 6.23						
6.22	If Yes, why did you vary the foods?	Text						
6.23	If No, why did you not vary the foods?	Text						
Behavior Change Communication Messaging and Counselling Services								
6.24	In the past one month (calendar month) have you heard any nutrition messages? (Do not read option, check all that apply)	1=Exclusive breastfeeding 2=Complementary feeding 3=Iron rich foods for child 4=Iron rich foods for mother 5=Iodized salt available for HH/consumed by especially women 6=Vit A supplement for children > 6months every 6 months 7=Vit A rich foods for children 8=Dewormer every 6 months for 2-5 year olds 9=Attending ANC 10=Attending CWC 11=Maternal Nutrition 12=Washing hands before food preparation 13=Other (Specify)____ 14=No (Skip 6.28)						

No.	Question	Response Code	Response of Caregiver I	Caregiver I's ID # (from roster)	Response of Caregiver II	Caregiver II's ID # (from roster)	Response of Caregiver III	Caregiver III's ID # (from roster)
6.25	Where have you heard the nutrition messages Enumerator: Circle all that apply	1 = Friends, 2 = Partner/Spouse, 3 = Mother 4= Mother in-law, 5=Health Provider, 6=Media (Radio and TV), 7 = MTM Support Group, 8 = Community Health Volunteer 9 = Community Video 10 = Not Applicable 11=Other (Specify)						

No.	Question	Response Code	Name of Caregiver I	Caregiver I's ID # (from roster)	Name of Caregiver II	Caregiver II's ID # (from roster)	Name of Caregiver III	Caregiver III's ID # (from roster)
6.26	Enumerator: If respondent answered more than 1 to 6.25 above, ask: Which of the medium of information you stated above do you think has provided the best information?	1 = Friends 2 = Partner/Spouse 3 = Mother 4= Mother in-law 5=Health Provider 6=Media (Radio and TV) 7 = MTM Support Group 8 = Community Health Volunteer 9 = Community Video 10 = Not Applicable 11=Other (Specify): Example - School health teachers - Agric Extension officers - Community development and social welfare officers - Environmental health officers						
6.27	If media (Radios or TV), please specify the programme or time you listen?	(Text)						
6.28	Have you received any counseling on IYCF?	1 = Yes, 2 = No >>>> skip to 6.30						
6.29	If yes, who provided the counseling service? Enumerator, list all responses	TEXT						

No.	Question	Response Code	Name of Caregiver I	Caregiver I's ID # (from roster)	Name of Caregiver II	Caregiver II's ID # (from roster)	Name of Caregiver III	Caregiver III's ID # (from roster)
Support from Husband and Male HH members on IYCF Issues								
6.30	Does your husband/spouse talk with you about IYCF?	1 = Yes 2 = No						
6.31	Has any man in your HH provided support for improved IYCF?	1 = Yes 2 = No						
6.32	If yes to 6.31 above, indicate the (Enumerator, circle all that apply)	1=Husband 2=Father 3= Uncle 4=Brother in-law 5= Son 6= Cousin 7 = Other (Specify)						

No.	Question	Response Code	Name of Caregiver I	Caregiver I's ID # (from roster)	Name of Caregiver II	Caregiver II's ID # (from roster)	Name of Caregiver III	Caregiver III's ID # (from roster)
6.33	What type of support have the men in your HH offered to improve IYCF? (Enumerator, circle all that apply)	1=Provided, Provided starchy food, 2=Provided meat, eggs, chicken (protein foods) 3=Provided green leafy vegetables 4=Provided beans or leguminous foods 5=Accompanied you for growth monitoring visits 6=Encouraged exclusive breastfeeding, 7=Fed the child, 8=Other (specify)_____						

End of Module 6

MODULE 7: HH WATER, SANITATION AND HYGIENE BEHAVIOURS INFORMATION

Enumerator: Ask these questions about all HH members. Ask the primary female respondent, whoever is most knowledgeable about the HH water, sanitation and hygiene situation.

No	Question	Response	Response Codes	
7.01.	What is your main source of drinking water? (Select only One)		1=Piped water into dwelling 2=Piped water to yard/plot 3=Public tap/standpipe 4=Tube well/Borehole/Pump 5=Protected dug well 6=Unprotected dug well 7=Protected spring 8=Unprotected spring	9=Rainwater collection 10=Bottle water 11=Sachet Water 12=Cart with small tank/drum 13=Tanker truck 14=Surface water (river, dam/ dugout, lake, pond, stream, canal, irrigation channel) 15=Other Specify_____
7.02	Do you treat your drinking water before use?		1= Yes 2= No >> 7.04	
7.03	How do you treat your drinking water?(Circle all that apply)		1= Filtered 2= Boiled 3= Filtered and boiled	4= Chlorine or other mineral/ natural treatments 5= UV treated 6= Other_____
7.04	If Main Water Source is outside home, how far (in Meters) does it take to go there, get water and come back		_____ Meters	
7.05	How long (in Minutes) does it take you to make a round trip to collect water?		_____ Minutes	
7.06	How regular is the supply of water from your main source?		1=Available all/most of the time 2=Available sometimes	3=Seasonal failure in supply 4=Other (specify)
7.07	How many HHs use your main source of drinking water?		Please write the number of HHs. Record DA/DK if the respondent does not answer or does not know	
7.08	How satisfied are you with your water source?		1= Very satisfied 2= Satisfied 3= Somewhat satisfied	4= Dissatisfied 5= Very dissatisfied

No	Question	Response	Response Codes
HH Sanitation Characteristics			

No	Question	Response	Response Codes
7.09	What type of toilet facility is available in this HH?		1 None 2 Open Pit 3 Pit Cladded with temporal super structure 4 VIP KVIP Latrine 5 Flush to open cesspit or open drain 6 Flush to Septic tank or pit 7 Flush to Sewer 8 Pan Latrine 9 Public latrine 10 Other (Specify _____)
7.10	What type of toilet facility do you use? If you use option 3, 4, 5, 6, 7 in question 7.10 go to 7.11. All other answers skip to 7.13		1=Open defecation 2=pit cladded with temporal superstructure no slabs or non-cleanable slabs 3=Pit latrine, with cleanable slabs 4=VIP/KVIP 5=Flush to open cesspit or open drain 6=Flush to septic tank or pit 7=Flush to sewer 8=Potable toilet with emptying service 9 =Pan Latrine 10= Public Latrine 11 = Other
7.11	If you use option 3, 4, 5, 6, 7 in question 7.10; Do you share this toilet facility with other households? (circle all that apply),		1 = Yes, with other household(s) in same house 2 = Yes, with other household(s) in different house 3 =Yes, with other household(s) and located in different house 4=No >>> skip to 7.13
7.12	How many HHs including your HH share in the use of the facility?		Record the number of HHs
7.13	What proportion of members in this house hold defecate in the open		1. Almost nobody (0%) 2. Some of them (25%) 3. Half of them (50%) 4. Most of them (75%) 5. Almost all of them (100%)
7.14	Do you feel you have a personal obligation to construct a latrine		1. No Obligation at All 2. Slight Obligation 3. Rather an Obligation

No	Question	Response	Response Codes
			4. Quite an Obligation 5. Very Strong Obligation
7.15	What are the problems that make it difficult to construct a latrine?		1. No Time 2. No Money 3. No Space 4. We don't feel that it is necessary /we don't want to construct 5. No Water 6. Underlain Rock Formation 7. Other (Specify).....
7.15b	Do you have any plans of building another latrine when the current one gets full/collapse?		1. Yes 2. No 3. Have not considered 4. Don't know 5. Other (Specify)
7.16A	How do you clean your latrine (Pit Latrine with Slab, VIP, or KVIP)?		1= Scrub floor with detergent 2= Scrub floor with water only 3=Use of ash/ sawn dust 4=Dispose waste paper daily 5=Other Specify _____
7.17	Is there a handwashing facility close to the toilet?		1= Yes 2= No >>>>skip to 7.22
7.18	If yes to Question 7.17, what type is it?		1 =Veronica bucket 2 =Standpipe 3 =Handwashing sink 4 =Bowl/ bucket 5 =Cup in a bucket 6 =Ablution kettle 7=Tippy tap 8 =Other _____
7.19	Does the handwashing facility have soap/ash?(Please check)		1= Yes 2= No >>>>skip to 7.21
7.20	Who provides the soap for the handwashing		1= Father 2= mother 3 = wife 4= Husband 5= Brother 6 = Uncle 7 = Other
7.20	Does the handwashing Facility have water? (Please check)		1= Yes 2= No
7.21	How far is the handwashing facility from your house?		1=less than 20 meters 2=20-50 meters 3=Above 50 meters 4= Facility is within building 5= Other Specify
7.22	Do you have any other handwashing stations in your		1=Yes

No	Question	Response	Response Codes	
	house?		2=No >>>> skip to 7.24	
7.23	If yes to 7.22 above, where is it installed?		1=Next to kitchen/cooking area 2=Next to dinning/eating area 3=Other (specify)	
7.24	In the past one month (calendar month) have you heard any messages about community sanitation?		1 = Yes 2 = No	
7.25	Where have you heard any messages about community sanitation? Enumerator: Circle all that apply		1 = Friends 2 = Partner/Spouse 3 = Mother in-law 4=Health Provider 5=Media (Radio and TV)	6 = MTM Support Group 7 = Community Health Volunteer 8 = Community Video 9 = Not Applicable 10=Other (Specify)
7.26	Enumerator: If respondent answered more than 1 to 7.25 above, ask: Which of the medium of information you stated above do you think has provided the best information?		1 = Friends 2 = Partner/Spouse 3 = Mother in-law 4=Health Provider 5=Media (Radio and TV)	6 = MTM Support Group 7 = Community Health Volunteer 8 = Community Video 9 = Not Applicable 10=Other (Specify)
7.27	If media (Radios or TV), please specify the programme or time you listen?			
No	Question	Response	Response Codes	
HH Hygiene Characteristics				
7.28	Do you wash your hands?		1= yes 2= No >>>> skip to 7.30	
7.29	If Yes, how do you wash your hands		1=with soap under running water 2=with soap in bowl 3=with ash and water	4=with ordinary water 5 = with waste water 6 = other specify _____
7.30	When should someone wash his/her hands? (Do not read option, check all that apply)		1= After defecation 2=Before eating 3=After changing diapers/wiping babies	4= Before food preparation 5=Before feeding infant 6 = other specify_____
7.31	At what critical times did you practice handwashing in the last 24 Hours (Do not read option check all that apply)		1= After defecation 2=Before eating 3=After changing diapers/wiping babies	4=Before food preparation 5=Before feeding infant 6=After handling a sick persons 7 = other specify_____
7.32	Why do you wash your hands?		1=To remove germs 2= remove oil and fat 3 = to make hands look clean	4 = To feel good 5= Other Specify _____
7.33	Have you ever heard any hygiene message?		1=Yes 2= No >>>> skip to 8.01	

No	Question	Response	Response Codes
7.34	If yes to question 7.33 from who or where? (Do not read option, check all that apply)		1=Community meeting 2=Neighbor 3=Relative 4=Radio 5=Posters/pictures 6=Television advertisement 7=HFFG person 8=Health center 9=health worker 10 = Community health Volunteer 11 = Environmental health Officer 12 =Don't know 13=church/ mosque 14=other Specify _____
7.35	What hygiene messages have you heard? (Do not read option, check all that apply)		1=None 2=Use a latrine 3=Drink safe water 4=Store water safely 5=Wash hands 6=Wash hands with soap/ash 7=Good food hygiene 8=Waste water management 9=safe disposal of baby feces 10=Other Specify _____

End of Module 7

MODULE 8: HH INCOME STATUS, PERCEPTION OF INTRA-HH FOOD ALLOCATION AND VULNERABILITY

Enumerator: Ask these questions about all HH members. Ask the primary male and female respondents, whoever is most knowledgeable about the HH incomes, intra-HH allocation and vulnerability.

No	Question	Response	Response Codes
8.01.	Do your Household have a regular (predictable) source of income?		1=Yes 2=No
8.02	How many HH members contribute to HH income? Enumerator, please record number		
8.03	What are the source(s) of your HH income? (Do not read option, check all that apply)		1=Sale of crop produce 2=Sale of poultry 3=Sale of livestock (small ruminant) 4=Petty trading 5=Remittances 6=Shea Picking 7= Rice Parboiling 8=Gift 9= Transport Business 10 = Farm labour 11 =Other (specify)_____
8.04	From what you produce (including Crops, grains and animals) do you have enough to eat and then sell some extra?		1= Yes 2=No >>>skip to 8.08
8.05	What kind of classification can you place your main surplus		1=Soybeans 2=Millet 3= Sorghum 4= Tubers (Yam, Potatoes, Cassava, etc.)

			5=Livestock (Sheep, goat, cattle etc.) 6= Poultry (Ducks, Chicken, Guinea Fowl) 7=Maize 8=Rice 9= Groundnut 10 = Other Specific	
8.06	Which of these best describes how you manage your surplus you want to sell?		1= I sell all of my surplus immediately when it is ready 2= I sell most of my surplus when it is ready and save a little to sell later 3= I sell a little of my surplus when it is ready and save most to sell later 4= I save all of my surplus to sell later 5=Other (specify)	
No	Question	Response	Response Codes	
8.07	About how much do you receive after selling all of your surplus, including grains and animals you raise and sell? NOTE to ENUMERATOR – this is after all selling, not just one sale		1= Less than GHS 100 2= Between 101 and 300 3= Between GHS 301 - GHS400 3= Between GHS 401 - GHS500	4 = Between GHS 501 - GHS600 5= Between GHS 601 - GHS700 6= More than GHS 700-(specify)
8.08	If no to 8.04, how long does your harvest last? (Enumerator ask, but don't read selections, mark response)		1=Less than 1 month 2=1-2 Months 3= 3-4 months 4=5-6 months 5=7-8 months	6=9-10months 9=11-12 months 10 = one year 11. Other/NA
8.09	About how much do you receive from activities not related to selling your surplus?		1= Less than GHS 100 2= Between 101 and 300 3= Between GHS 301 - GHS400 3= Between GHS 401 - GHS500	4 = Between GHS 501 - GHS600 5= Between GHS 601 - GHS700 6= More than GHS 700-(specify) 7=Other (Specify)/NA
8.10	Comparing the income received from the sale of your surplus including grains and animals this year and that of last year if any can you say?		1. = Incomes for this year and last year were the same 2. =Last year income was higher 3. =This year income was higher 4. =You cannot tell 5. =Others Specify	
8.11	What do you do with income after you sell your surplus? (Do not read option, check all that apply)		1=Spend all of it immediately 2= Spend most of it and save a little	3= Save most of it spend a little 4=Save all of it 5=Other (Specify)
8.12	What do you do with extra money after your immediate expenditure? (Do not read option, check all that apply)		1=Keep it in the house 2=Purchase livestock 3=Purchase grain 4=Save in a VSLA (savings group)	5=Save in Mobile Money 6=Save in Bank Account 7=Marry again 8=Other (specify)
Intra-HH food allocation patterns/attitudes				
8.13	Are you able to provide 3 full meals a day for every		1= Yes >>>> End Module 2=No	

	member of your HH throughout the year?		
8.14	If no to 8.13 above, during which months are you not able to provide 3 full meals a day for every member of your HH? (Do not read option, check all that apply)		1=January 2=February 3=March 4=April 5=May 6=June 7=July 8=August 9=September 10=October 11=November 12=December
8.15	When food is limited (you cannot provide 3 full meals), which member of the HH receives priority at mealtime? (Do not read option, check all that apply)		1=Pregnant Women 2=Woman who just gave birth 3=Woman who is breastfeeding 4=Sick Person 5=Child Under 5 6=Elderly Person 7=Head of HH/Landlord 7=Other (specify)
8.16	Under what circumstances would you give a preferential meal to a member of the HH? (Do not read option, check all that apply)		1=Pregnant Women 2=Woman who just gave birth 3=Woman who is breastfeeding 4=Sick Person 5=Child Under 5 6=Elderly Person 7=Other (specify)
8.17	Describe the way the person is fed separately		1=The same food as other members, but separate 2=They receive more quantity of the same food, but separate 3= They receive completely different food 4= They receive the same food and different food in addition 5= other
8.18	If respondent answers “3” or “4” ask what kind of food		List all that apply
8.19	How do you describe the length of the lean season in your household this year compared to last year?		1 = Shorter 2 = Much shorter 3 = The same 4 = Longer 5 = Much longer

End of Module 8 Visit I - Module 9: Women's Empowerment in Agriculture Index (FtF Module H)

Enumerator Note: This questionnaire should be administered separately to the primary and secondary respondents. Complete the consent form if consent has not been taken earlier in Module I above. Ask to conduct the interview for this module in private or where other members of the household cannot overhear or contribute answers. Do not attempt to make responses between the primary and secondary respondent the same—it is ok for them to be different. Ensure that you code the outcome of the interview at the end of interview for each target respondent under this module.

VISIT I - MODULE 9.1: HOUSEHOLD IDENTIFICATION

Household Identification	Response/Code	Household Identification	Response/Code
9.1.01. Household Identification:		9.04. Type of household (If possible, auto fill this field after name has been selected from 11.1.02)	Male and female adult...1

			Female adult only....2
9.1.02. Name of respondent currently being interviewed (Select from drop down list): Surname, First name:		9.1.05. Ability to be interviewed alone:	
9.1.03. Sex of respondent (Auto fill as soon as name is selected from 11.1.02): Male 1 Female 2		Codes for 9.1.05 Alone 1 With adult females present 2 With adult males present 3 With adults mixed sex present... 4 With children present 5 With adults mixed sex and children present.....6	

VISIT I - MODULE 9.2: ROLE IN HOUSEHOLD DECISION-MAKING AROUND PRODUCTION AND INCOME GENERATION (FTF MODULE H2).

		Did you (singular) participate in [ACTIVITY] in the past 12 months (that is during the last [one/two] cropping seasons)?	How much input did you have in making decisions about [ACTIVITY]?	How much input did you have in decisions on the use of income generated from [ACTIVITY]
Activity Code	Activity Description	9.2.01	9.2.02	9.2.03
A	Food crop farming: crops that are grown primarily for household food consumption	1 = Yes 2= No >> >> next activity	1= No input 2 =Input into very few decision 3= Input into some decisions 4= Input into most decisions 5= Input into all decisions 6 = No decision made	1= No input 2 =Input into very few decision 3= Input into some decisions 4= Input into most decisions 5= Input into all decisions 6 = No decision made
B	Cash crop farming: crops that are grown primary for sale in the market	1 = Yes 2= No >> >> next activity	1= No input 2 =Input into very few decision 3= Input into some decisions 4= Input into most decisions 5= Input into all decisions 6 = No decision made	1= No input 2 =Input into very few decision 3= Input into some decisions 4= Input into most decisions 5= Input into all decisions 6 = No decision made
C	Livestock raising	1 = Yes 2= No >> >> next activity	1= No input 2 =Input into very few decision 3= Input into some decisions 4= Input into most decisions 5= Input into all decisions 6 = No decision made	1= No input 2 =Input into very few decision 3= Input into some decisions 4= Input into most decisions 5= Input into all decisions 6 = No decision made
D	Non-farm economic activities:	1 = Yes	1= No input	1= No input

		Did you (singular) participate in [ACTIVITY] in the past 12 months (that is during the last [one/two] cropping seasons)?	How much input did you have in making decisions about [ACTIVITY]?	How much input did you have in decisions on the use of income generated from [ACTIVITY]
Activity Code	Activity Description	9.2.01	9.2.02	9.2.03
	Small business, self-employment, buy-and-sell	2= No >> >> next activity	2 =Input into very few decision 3= Input into some decisions 4= Input into most decisions 5= Input into all decisions 6 = No decision made	2 =Input into very few decision 3= Input into some decisions 4= Input into most decisions 5= Input into all decisions 6 = No decision made
E	Wage and salary employment: in-kind or monetary work both agriculture and other wage work	1 = Yes 2= No >> >> next activity	1= No input 2 =Input into very few decision 3= Input into some decisions 4= Input into most decisions 5= Input into all decisions 6 = No decision made	1= No input 2 =Input into very few decision 3= Input into some decisions 4= Input into most decisions 5= Input into all decisions 6 = No decision made
F	Fishing or fishpond culture	1 = Yes 2= No >> >> next activity	1= No input 2 =Input into very few decision 3= Input into some decisions 4= Input into most decisions 5= Input into all decisions 6 = No decision made	1= No input 2 =Input into very few decision 3= Input into some decisions 4= Input into most decisions 5= Input into all decisions 6 = No decision made

VISIT I - MODULE 9.3: ACCESS TO PRODUCTIVE CAPITAL (FTF MODULE H3)

Productive Capital		Does anyone in your household currently have any [ITEM]? Yes 1 No 2 >> next item	How many of [ITEM] does your household currently have?	Who would you say owns most of the [ITEM]?	Who would you say can decide whether to sell [ITEM] most of the time?	Who would you say can decide whether to give away [ITEM] most of the time?	Who would you say can decide to mortgage or rent out [ITEM] most of the time?	Who contributes most to decisions regarding a new purchase of [ITEM]?
Productive Capital		9.3.01a	9.3.01b	9.3.02	9.3.03	9.3.04	9.3.05	9.3.06
A	Agricultural land (pieces/plots)							
B	Large livestock (oxen, cattle)							
C	Small livestock (goats, pigs, sheep)							

Productive Capital		Does anyone in your household currently have any [ITEM]? Yes 1 No 2 >> next item	How many of [ITEM] does your household currently have?	Who would you say owns most of the [ITEM]?	Who would you say can decide whether to sell [ITEM] most of the time?	Who would you say can decide whether to give away [ITEM] most of the time?	Who would you say can decide to mortgage or rent out [ITEM] most of the time?	Who contributes most to decisions regarding a new purchase of [ITEM]?
Productive Capital		9.3.01a	9.3.01b	9.3.02	9.3.03	9.3.04	9.3.05	9.3.06
D	Chickens, Ducks, Turkeys, Pigeons							
E	Fish pond or fishing equipment							
F	Farm equipment (non-mechanized)							
G	Farm equipment (mechanized)							
H	Nonfarm business equipment							
I	House (and other structures)							
J	Large consumer durables (fridge, TV, sofa)							
K	Small consumer durables (radio, cookware)							
L	Cell phone							
M	Other land not used for agricultural purposes (pieces, residential or commercial land)							
N	Means of transportation (bicycle, motorcycle, car)							
Codes for 9.3.02 to 9.3.06: Decision-making and control over productive capital								
Self 1		Self and other household member(s) 5			Self and other outside people 8			
Partner/Spouse 2		Partner/Spouse and other household member(s) 6			Partner/Spouse and other outside people 9			
Self and partner/spouse jointly 3		Someone (or group of people) outside the household...7			Self, partner/spouse and other outside people 10			
Other household member 4								

VISIT I - MODULE 9.3 CONTINUED: ACCESS TO CREDIT (FTF MODULE H3)

Lending sources		Has anyone in your household taken any loans or borrowed cash/in-kind from [SOURCE] in the last 12 months?	Who made the decision to borrow from [SOURCE]?	Who makes the decision about what to do with the money/ item borrowed from [SOURCE]?	If more credit had been available from this source, would you have used it? 1 = Yes >> Next lending source 2 = No	Why would you not have borrowed more from [SOURCE]? Select code then >> Next source	Did you want to borrow or get a loan from [SOURCE] in the last 12 months but did not? 1 = Yes 2 = No >> Next source	Why were you not able to borrow from [SOURCE]? (Main reason only)
Lending source names		9.3.07	9.3.08	9.3.09	9.3.10A	9.3.10B	9.3.11A	9.3.11B
A	Non-governmental organization (NGO)							
B	Informal lender							
C	Formal lender (bank/financial institution)							
D	Friends or relatives							
E	Group based micro-finance or lending including Village Savings and Loans Associations (VSLAs)/susu etc.							
Codes for 9.3.07 Taken loans Yes, cash 1 Yes, in-kind 2 Yes, cash and in-kind 3 No..... 4 >> 9.3.11a Don't know.....5 >> 9.3.11a		Codes for 9.3.08 & 9.3.09: Self.....1 Partner/Spouse.....2 Self and partner/spouse jointly....3 Other household member.....4 Self and other household member(s).....5 Partner/Spouse and other household member(s)....6 Someone (or group of people) outside the household.....7 Self and other outside people.....8 Partner/Spouse and other outside people.....9 Self, partner/spouse and other outside people.....10			Codes for 9.3.10B/9.3.11B: Borrowing Have enough money... 1 Afraid of losing collateral 2 Do not have enough collateral/did not qualify for the loan 3 Afraid cannot pay back the money... 4 Interest rate/other costs too high 5 Not allowed to borrow/family dispute in borrowing decision 6 Place of lender is too far... 7 Short time frame for repayment 8 Other, specify... 9			

VISIT I - MODULE 9.4: INDIVIDUAL LEADERSHIP AND INFLUENCE IN THE COMMUNITY (FTF MODULE H4)

Q.No.	Question	Response	Response options/Instructions
9.4.01	Do you feel comfortable speaking up in public to help decide on infrastructure (like small wells, roads, water supplies) to be built in your community?		No, not at all comfortable 1 Yes, but with a great deal of difficulty ...2 Yes, but with a little difficulty 3 Yes, fairly comfortable 4 Yes, very comfortable 5
9.4.02	Do you feel comfortable speaking up in public to ensure proper payment of wages for public works or other similar programs?		
9.4.03	Do you feel comfortable speaking up in public to protest the misbehavior of authorities or elected officials?		

VISIT I - MODULE 9.4 CONTINUED: GROUP MEMBERSHIP AND INFLUENCE IN THE GROUP (FTF MODULE H4)

Group membership		Is there a [GROUP] in your community? 1 = Yes 2 = No >> next group 3 = DK >> next group	Are you an active member of this [GROUP]? 1 = Yes 2 = No >> 9.4.07	How much input do you have in making decisions in this [GROUP]? (>> next group)	Why are you not a member of this [GROUP]?
	Group Categories	9.4.04	9.4.05	9.4.06	9.4.07
A	Agricultural / livestock/ fisheries producer's group (including marketing groups)				
B	Water users' group				
C	Forest users' group				
D	Credit or microfinance group (including Susu/ Village Savings and Loans Associations (VSLAs)				
Group membership		Is there a [GROUP] in your community? 1 = Yes 2 = No >> next group 3 = DK >> next group	Are you an active member of this [GROUP]? 1 = Yes 2 = No >> 9.4.07	How much input do you have in making decisions in this [GROUP]? (>> next group)	Why are you not a member of this [GROUP]?
	Group Categories	9.4.04	9.4.05	9.4.06	9.4.07
E	Mutual help or insurance group (including burial societies)				
F	Trade and business association				
G	Civic groups (improving community) or charitable group (helping others)				

Group membership		Is there a [GROUP] in your community? 1 = Yes 2 = No >> next group 3 = DK >> next group	Are you an active member of this [GROUP]? 1 = Yes 2 = No >> 9.4.07	How much input do you have in making decisions in this [GROUP]? (>> next group)	Why are you not a member of this [GROUP]?
	Group Categories	9.4.04	9.4.05	9.4.06	9.4.07
H	Local government				
I	Religious group				
J	Other women's group (only if it does not fit into one of the other categories)				
K	Other (specify)				

9.4.06: Input into decisions No input 1 Input into very few decisions 2 Input into some decisions 3 Input into most decisions 4 Input into all decisions 5	9.4.07: Why not member of group Not interested 1 No time 2 Unable to raise entrance fees 3 Unable to raise reoccurring fees 4 Group meeting location not convenient. 5 Family dispute/unable to join.....6 Not allowed because of sex 7 Not allowed because of other reason ...8 Other, specify... 9
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VISIT II - MODULE 10: HOUSEHOLD CONSUMPTION EXPENDITURE (FTF MODULE G.)

Enumerator: Ask these questions about all household members. Ask the primary or secondary respondent, whoever is most knowledgeable about the food the household members have eaten in the last week, as well as any non-food items that household members have bought. As much as possible, look for the household member who has adequate information on household food consumption and purchases over the past week. The same respondent(s) should be asked questions in **10.1-10.6**.

VISIT II - MODULE 10.1: FOOD CONSUMPTION OVER PAST 7 DAYS (FTF MODULE G.I.)

Over the past one week (7 days), did you or others in your household eat any of the following food items? INCLUDE FOOD BOTH EATEN COMMUNALLY IN THE HOUSEHOLD AND THAT EATEN SEPARATELY BY INDIVIDUAL HH MEMBERS, BOTH INSIDE AND OUTSIDE THE HOME	Yes=1, No=2 >>Next item	Item Code	How much in total did your household eat in the past week? (Unit or OTHER)		How much came from purchases? (in same unit as 10.1.03b)	How much did you spend on what was eaten last week? (if family ate part but not all of something they purchased, estimate only cost of what was consumed)	How much came from own-production? (in same unit as 10.1.03b)	How much came from gifts and other sources? (in same unit as 10.1.03b)
	10.1.01	10.1.02	10.1.03a Quantity	10.1.03b Unit	10.1.04 Quantity	10.1.05 GHS	10.1.06 Quantity	10.1.07 Quantity
Cereals, Grains & Cereal Products		1-15						
Maize normal flour		01		Bowl				
Maize dough		02		Bowl				
Green maize (fresh maize cob)		03		Single				
Rice (paddy, grain)		04		Bowl				
Sorghum/Guinea corn		05		Bowl				
Millet grain		06		Bowl				
Millet flour		07		Bowl				
Other grains		08		Bowl				
Other flours		09		Bowl				
Bread		10		Loafs				
Biscuits		11		Pieces				
Spaghetti, macaroni, pasta		12		Grams				
Breakfast cereal		13		Bowls				

Over the past one week (7 days), did you or others in your household eat any of the following food items? INCLUDE FOOD BOTH EATEN COMMUNALLY IN THE HOUSEHOLD AND THAT EATEN SEPARATELY BY INDIVIDUAL HOUSEHOLD MEMBERS, BOTH INSIDE AND OUTSIDE THE HOME	Yes=1, No=2 >>Next item	Item Code	How much in total did your household eat in the past week? (Unit or OTHER)		How much came from purchases? (in same unit as 10.1.03b)	How much did you spend on what was eaten last week? (if family ate part but not all of something they purchased, estimate only cost of what was consumed)	How much came from own-production? (in same unit as 10.1.03b)	How much came from gifts and other sources? (in same unit as 10.1.03b)
	10.1.01	10.1.02	10.1.03a Quantity	10.1.03b Unit	10.1.04 Quantity	10.1.05 GHS	10.1.06 Quantity	10.1.07 Quantity
Infant feeding cereals		14		Bowls				
Other (specify)		15						
Roots, Tubers, and Plantains		16-29						
Cassava tubers		21		Tubers				
Cassava-gari		22		Bowls				
Cassava flour		23		Bowls				
Cassava (other forms)		24		Bowls				
Yam		25		Tubers				
Cocoyam		26		Pieces				
Plantain		27		Fingers				
Potatoes (Orange Flesh Sweet & other potato)		28		Pieces				
Other (specify)		29						
Nuts and Pulses		30-38						
Bambara beans		30		Bowl				
Cowpea		31		Bowls				
Pigeon pea		32		Bowls				
Groundnut (roasted or raw)		33		Bowls				
Soyabean		34		Bowls				
Other legumes/pulses		35		Bowls				
Palm nuts		36		Bowls				

Over the past one week (7 days), did you or others in your households eat any of the following food items? INCLUDE FOOD BOTH EATEN COMMUNALLY IN THE HOUSEHOLD AND THAT EATEN SEPARATELY BY INDIVIDUAL HOUSEHOLD MEMBERS, BOTH INSIDE AND OUTSIDE THE HOME	Yes=1, No=2 >>Next item	Item Code	How much in total did your household eat in the past week? (Unit or OTHER)		How much came from purchases? (in same unit as 10.1.03b)	How much did you spend on what was eaten last week? (if family ate part but not all of something they purchased, estimate only cost of what was consumed)	How much came from own-production? (in same unit as 10.1.03b)	How much came from gifts and other sources? (in same unit as 10.1.03b)
	10.1.01	10.1.02	10.1.03a Quantity	10.1.03b Unit	10.1.04 Quantity	10.1.05 GHS	10.1.06 Quantity	10.1.07 Quantity
Coconut		37		Pieces				
Other Nuts		38		Bowls				
Vegetables		39-52						
Onions		39		pieces				
Tomatoes		40		Pieces				
Carrots		41		Fingers				
Cabbage/Lettuce		42		Bowls				
Okro		43		Bowls				
Garden eggs/egg plant		44		Pieces				
Pepper		45		Margarine				
Nkontonmire		46		Bundle				
Cucumber		47		Pieces				
Pumpkin		48		Bunch				
Mushroom		49		Bowls				
Other cultivated green leafy vegetables		50		Bunch				
Gathered wild green leaves		51		Bunch				
Other vegetables (specify):		52		Bunch /Bowls				
Meat, Fish and Animal Products		53-68						
Eggs		53		Pieces				
Fresh Fish and Shellfish		54		Pieces				

Over the past one week (7 days), did you or others in your households eat any of the following food items? INCLUDE FOOD BOTH EATEN COMMUNALLY IN THE HOUSEHOLD AND THAT EATEN SEPARATELY BY INDIVIDUAL HOUSEHOLD MEMBERS, BOTH INSIDE AND OUTSIDE THE HOME	Yes=1, No=2 >>Next item	Item Code	How much in total did your household eat in the past week? (Unit or OTHER)		How much came from purchases? (in same unit as 10.1.03b)	How much did you spend on what was eaten last week? (if family ate part but not all of something they purchased, estimate only cost of what was consumed)	How much came from own-production? (in same unit as 10.1.03b)	How much came from gifts and other sources? (in same unit as 10.1.03b)
	10.1.01	10.1.02	10.1.03a Quantity	10.1.03b Unit	10.1.04 Quantity	10.1.05 GHS	10.1.06 Quantity	10.1.07 Quantity
Dried Fish		55		Pieces Margarine tin				
Smoked Fish		56		Pieces				
Beef		57		Pounds				
Goat		58		Pounds				
Pork		59		Pounds				
Mutton		60		Pounds				
Chicken		61		Pounds				
Other poultry - guinea fowl, Doves		62		Pounds				
Small animal- rabbit, squirrels, Etc.		63		Pounds				
Wild game		64		Pounds				
Game birds		65		Pounds				
Snail		66		Pieces				
Tinned meat or fish		67		Tin				
Other (specify)		68						
Fruits		69-79						
Mangoes		69		Pieces				

Over the past one week (7 days), did you or others in your households eat any of the following food items? INCLUDE FOOD BOTH EATEN COMMUNALLY IN THE HOUSEHOLD AND THAT EATEN SEPARATELY BY INDIVIDUAL HOUSEHOLD MEMBERS, BOTH INSIDE AND OUTSIDE THE HOME	Yes=1, No=2 >>Next item	Item Code	How much in total did your household eat in the past week? (Unit or OTHER)		How much came from purchases? (in same unit as 10.1.03b)	How much did you spend on what was eaten last week? (if family ate part but not all of something they purchased, estimate only cost of what was consumed)	How much came from own-production? (in same unit as 10.1.03b)	How much came from gifts and other sources? (in same unit as 10.1.03b)
	10.1.01	10.1.02	10.1.03a Quantity	10.1.03b Unit	10.1.04 Quantity	10.1.05 GHS	10.1.06 Quantity	10.1.07 Quantity
Bananas		70		Fingers				
Citrus (oranges, tangerine, etc.		71		Pieces				
Pineapple		72		Pieces				
Pawpaw		73		Pieces				
Guava		74		Pieces				
Avocado Pears		75		Pieces				
Water Melon		76		Pieces				
Apple		77		Pieces				
Wild fruit (shea, dawadawa, etc.)		78		Bowls				
Other fruits (specify)		79						
Milk and Milk Products		80-86						
Fresh milk		80		Fanta/coke bottle				
Other milk (Powdered, sourced etc.)		81		Margarine tin				
Margarine /Butter		82		Margarine tin				
Yoghurt		83		Pieces				
Cheese		84		Pieces				
Infant feeding formula (for		85		Tin				

Over the past one week (7 days), did you or others in your households eat any of the following food items? INCLUDE FOOD BOTH EATEN COMMUNALLY IN THE HOUSEHOLD AND THAT EATEN SEPARATELY BY INDIVIDUAL HOUSEHOLD MEMBERS, BOTH INSIDE AND OUTSIDE THE HOME	Yes=1, No=2 >>Next item	Item Code	How much in total did your household eat in the past week? (Unit or OTHER)		How much came from purchases? (in same unit as 10.1.03b)	How much did you spend on what was eaten last week? (if family ate part but not all of something they purchased, estimate only cost of what was consumed)	How much came from own-production? (in same unit as 10.1.03b)	How much came from gifts and other sources? (in same unit as 10.1.03b)
	10.1.01	10.1.02	10.1.03a Quantity	10.1.03b Unit	10.1.04 Quantity	10.1.05 GHS	10.1.06 Quantity	10.1.07 Quantity
bottle)								
Other (specify)		86						
Sugar, Fats, and Oil		87-94						
Sugar		87		Margarine tin				
Sugar Cane		88		Sticks				
Palm oil		89		Fanta/coke bottle				
Palm kernel oil		90		Fanta/coke bottle				
Coconut oil		91		Fanta/coke bottle				

Over the past one week (7 days), did you or others in your household eat any of the following food items? INCLUDE FOOD BOTH EATEN COMMUNALLY IN THE HOUSEHOLD AND THAT EATEN SEPARATELY BY INDIVIDUAL HOUSEHOLD MEMBERS, BOTH INSIDE AND OUTSIDE THE HOME	Yes=1, No=2 >>Next item	Item Code	How much in total did your household eat in the past week? (Unit or OTHER)		How much came from purchases? (in same unit as 10.1.03b)	How much did you spend on what was eaten last week? (if family ate part but not all of something they purchased, estimate only cost of what was consumed)	How much came from own-production? (in same unit as 10.1.03b)	How much came from gifts and other sources? (in same unit as 10.1.03b)
	10.1.01	10.1.02	10.1.03a Quantity	10.1.03b Unit	10.1.04 Quantity	10.1.05 GHS	10.1.06 Quantity	10.1.07 Quantity
Groundnut oil		92		Fanta/coke bottle				
Shea butter		93		Bowls				
Other cooking oils		94		Fanta/coke bottle				
Beverages		95-103						
Tea		95		Pieces				
Coffee		96		Pieces				
Cocoa, Milo, chocolim, etc.		97		Tin				
Fruit juice		98		Fanta/coke bottle				
Freezes (flavored ice)		99		Fanta/coke bottle				
Non-Alcoholic beverages		100		Fanta/coke bottle				
Alcoholic beverages		101		Fanta/coke bottle				
Bottled water		102		liters				
Other (specify)		103						
Spices & Miscellaneous		104-110						
Salt		104		Margarine				

Over the past one week (7 days), did you or others in your household eat any of the following food items? INCLUDE FOOD BOTH EATEN COMMUNALLY IN THE HOUSEHOLD AND THAT EATEN SEPARATELY BY INDIVIDUAL HOUSEHOLD MEMBERS, BOTH INSIDE AND OUTSIDE THE HOME	Yes=1, No=2 >>Next item	Item Code	How much in total did your household eat in the past week? (Unit or OTHER)		How much came from purchases? (in same unit as 10.1.03b)	How much did you spend on what was eaten last week? (if family ate part but not all of something they purchased, estimate only cost of what was consumed)	How much came from own-production? (in same unit as 10.1.03b)	How much came from gifts and other sources? (in same unit as 10.1.03b)
	10.1.01	10.1.02	10.1.03a Quantity	10.1.03b Unit	10.1.04 Quantity	10.1.05 GHS	10.1.06 Quantity	10.1.07 Quantity
				tin				
Spices		105		Margarine tin				
Sauces (tomato, soy, Neri etc.)		106		Margarine tin				

Over the past one week (7 days), did you or others in your household eat any of the following food items? INCLUDE FOOD BOTH EATEN COMMUNALLY IN THE HOUSEHOLD AND THAT EATEN SEPARATELY BY INDIVIDUAL HOUSEHOLD MEMBERS, BOTH INSIDE AND OUTSIDE THE HOME	Yes=1, No=2 >>Next item	Item Code	How much in total did your household eat in the past week? (Unit or OTHER)		How much came from purchases? (in same unit as 10.1.03b)	How much did you spend on what was eaten last week? (if family ate part but not all of something they purchased, estimate only cost of what was consumed)	How much came from own-production? (in same unit as 10.1.03b)	How much came from gifts and other sources? (in same unit as 10.1.03b)
	10.1.01	10.1.02	10.1.03a Quantity	10.1.03b Unit	10.1.04 Quantity	10.1.05 GHS	10.1.06 Quantity	10.1.07 Quantity
Honey		107		Fanta/coke bottle				

Jam, jelly		108		Margarine tin				
Sweets, candy, chocolates		109		Pieces				
Other (specify)		110						
Cooked Foods from Vendors		111-124						
Maize - boiled or roasted (vendor)		111		Pieces				
Chips (vendor)		112		Margarine tin				
Cassava fufu		113		Bowls				
Yam fufu		114		Bowls				
Yam - boiled (Ampesi)		115		Pieces				
Plantain - boiled/fried/roasted		116		Fingers				
Rice based vendor foods		117		Bowl				
Eggs - boiled (vendor)		118		Pieces				
Chicken (vendor)		119		Pieces				
Meat (vendor)		120		Pieces				
Fish (vendor)		121		Pieces				
Doughnut (vendor)		122		Pieces				
Meal eaten at restaurant/chop Bar		123		Bowl				
Other (specify)		124						
UNITS	UNITS - continued			UNITS – continued			UNITS - continued	
American tin - 01 Balls - 02 Bar - 03 Barrel - 04 Basket - 05 Beer bottle -06 Bowl -07 Box - 08 Bucket - 09 Bunch - 10 Bundle – 11	Crate – 12 Calabash - 13 Dozen - 14 Fanta /coke bottle - 15 Fingers - 16 Fruits - 17 Gallon - 18 Kilogram -19 Litre - 20 Loaf - 21			Log - 22 Margarine tin -23 Maxi bag -24 Mini bag -25 Meters -26 Nut - 27 Pair - 28 Pieces - 29 Pots - 30 Pounds - 31 Set – 32			Sheet - 33 Singles - 34 Stick - 35 Tonne - 36 Tree - 37 Tubers - 38 Yards – 39 Grams - 40 Tin - 41	

VISIT II - MODULE 10.2: NON-FOOD EXPENDITURES - OVER PAST ONE WEEK AND ONE MONTH (FTF MODULE G2.)

ONE WEEK RECALL	Item code	Yes=1 No=2>>Next Item	How much did you pay (how much did they cost) in total? GHS
	10.2.01	10.2.02	10.2.03
Over the past <u>one week (7 days)</u> , did your household use or buy any of the under listed items?	125-133		
Charcoal/Firewood	125		
Kerosene	126		
Cigarettes or other tobacco	127		
Candles	128		
Matches	129		
Newspapers or magazines	130		
Public transport - Taxi/ trotro etc.	131		
Public transport - Bus/Minibus	132		
Others Public transport (Specify)	133		
ONE MONTH RECALL			
Over the past <u>one month</u> , did your household use or buy any [...]?	134-154		
Milling fees for grains (not including cost of grain itself), grain	134		
Bar soap (body soap or clothes soap)	135		
Clothes soap (powder, paste)	136		
Bathing soap (Tablets, liquid etc.)	137		
Toothpaste, toothbrush	138		
Toilet paper	139		
Glycerin, Vaseline, skin creams	140		
ONE MONTH RECALL CONTINUED	Item code	Yes=1No=2>>Next Item	How much did you pay (how much did they cost) in total?
	10.2.01	10.2.02	10.2.03 GHS
Other personal products (shampoo, razor blades, cosmetics, hair products, etc.)	141		
Light bulbs	142		
Postal fees (stamps and other postal fees)	143		
Donation - to church, charity, beggar, etc.	144		
Vehicle Fuel (Petrol or diesel)	1445		
Motor vehicle (including bicycle) service, repair, or parts	146		

ONE WEEK RECALL	Item code	Yes=1 No=2>>Next Item	How much did you pay (how much did they cost) in total? GHS
	10.2.01	10.2.02	10.2.03
Wages paid to servants	147		
Mortgage - regular payment to purchase house	148		
Rent	149		
Repairs & maintenance to dwelling	150		
Repairs to household and personal items (radios, watches, etc., excluding battery purchases)	151		
Expenditures on pets	152		
Batteries	153		
Cell/Mobile phones/Phone credit	154		
HEALTH EXPENDITURES (Include Estimated Value of any In-Kind Payments, or borrowed amounts)	155-158		
Anything related to illnesses and injuries, including for medicine, tests, consultation, & in-patient fees	155		
Medical care not related to an illness - preventative health care, pre-natal visits, check-ups, etc.	156		
Non-prescription medicines - Panadol, malaria drug, cough syrup, etc.	157		
Others...	158		

VISIT II - MODULE 10.3: NON-FOOD EXPENDITURES OVER PAST THREE MONTHS (FTF MODULE G3).

Over the past three months, did your household use or buy any of the under listed items?	Item code	Yes=1 No=2>>Next Item	How much did you pay (how much did they cost) in total? GHS
	10.3.01	10.3.02	10.3.03
THREE MONTHS	159-194		
Infant clothing	159		
Baby nappies/diapers	160		
Boy's clothes (FOR ALL CLOTHING, EXCLUDE UNIFORMS/SCHOOL CLOTHING)	161		
Men's clothes	166		

Over the past three months, did your household use or buy any of the under listed items?	Item code	Yes=1 No=2>>Next Item	How much did you pay (how much did they cost) in total? GHS
	10.3.01	10.3.02	10.3.03
THREE MONTHS	159-194		
Girl's clothes	171		
Boy's shoes	179		
Men's shoes	180		
Girl's shoes	181		
Lady's shoes	182		
Cloth, thread, other sewing material	183		
Laundry, dry cleaning, tailoring fees	184		
Bowls, glassware, plates, silverware, etc.	185		
Cooking utensils (cook pots, stirring spoons and whisks, etc.)	186		
Cleaning utensils (brooms, brushes, etc.)	187		
Torch / flashlight	188		
Umbrella	189		
Kerosene lamp/lantern	190		
Stationery items (excluding school related)	191		
Books (excluding school related)	192		
Music or video cassette or CD/DVD	193		
Other	194		

VISIT II - MODULE 10.4: NON-FOOD EXPENDITURES OVER PAST 12 MONTHS (FTF MODULE G4)

Over the past one year (twelve months), did your household use or buy any of the under listed items?	Item code	Yes=1 No=2>>Next Item	How much did you pay (how much did they cost) in total? GHS
	10.4.01	10.4.02	10.4.03
PAST ONE YEAR (12 MONTHS)	195-210		
Carpet, rugs, drapes, curtains	195		
Mat - sleeping or for drying maize flour	196		
Mosquito net	197		
Mattress	198		

Over the past one year (twelve months), did your household use or buy any of the under listed items?	Item code	Yes=1 No=2>>Next Item	How much did you pay (how much did they cost) in total? GHS
	10.4.01	10.4.02	10.4.03
Sports & hobby equipment, musical, instruments, toys	199		
Cement	200		
Bricks	201		
Construction timber	202		
Council rates	203		
Insurance – health, auto, home, life	204		
Fines or legal fees	205		
Marriage (bride wealth) costs	206		
Outdooring/ Naming ceremony	207		
Marriage ceremony costs	208		
Funeral costs, household members	209		
Funeral costs, non-household members (relatives, neighbors/friends)	210		
Over the past one year (twelve months), did your household use or buy any of the under listed items?	Item code	Yes=1 No=2>>Next Item	How much did you pay (how much did they cost) in total? GHS
	10.4.01	10.4.02	10.4.03
HEALTH EXPENDITURES (Include Estimated Value of any In-Kind Payments, or borrowed amounts) over last 12 months	211-214		
Hospitalizations or overnight stay in any hospital – total cost for treatment, including food cost	211		
Travel to and from the medical facility for any overnight stay(s) or hospitalization	212		
Over-night(s) stay at a traditional healer's or faith healer's dwelling – total costs for treatment, including food cost	213		
Travel costs to the traditional healer's or faith healer's dwelling for overnight stay(s)	214		
EDUCATION EXPENDITURES (Include Estimated Value of any In-Kind Payments, or borrowed amounts) over last 12 months	215-223		

Over the past one year (twelve months), did your household use or buy any of the under listed items?	Item code	Yes=1 No=2>>Next Item	How much did you pay (how much did they cost) in total? GHS	
	10.4.01	10.4.02	10.4.03	
Tuition, including extra tuition fees	215			
Expenditures on after school programs and tutoring	216			
School books and stationary	217			
School uniform	218			
Boarding fees	219			
Contribution to school building maintenance	220			
Transport to and from school	221			
Parent/Teacher Association and other related fees	222			
Other	223			

NON-FOOD ITEMS THAT MAY NOT HAVE BEEN PURCHASED	Item Code	Yes=1 No=2>>Next Item	What was the estimated total value of [ITEM] used?		What was the total estimated value of [ITEM] that you used (for items that were gathered)? GHS	How much did you spend total on [ITEM] (for items that were bought) GHS
	10.4.01	10.4.02	10.4.03a Quantity	10.4.03b Unit	10.4.04 GHS	
Over the past one year (12 months) did your household gather, use or buy any of the under listed items? (note that the value of these items should be entered <u>only</u> if they were purchased or used for the house, not any investments)	224-226		Quantity	Unit		
Wood poles, bamboo	224					
Grass for thatching roof or other use	225					
other	226					

VISIT II - MODULE 10.5: HOUSING EXPENDITURES (FTF MODULE G5)

Do you own or are purchasing this house, is it provided to you by an employer, do you use it for free, or do you rent this house?	If you <u>sold</u> this <u>dwelling</u> today, how much would you receive for it?	How many years ago was this house built? How old is it?	If you <u>rented</u> this <u>dwelling</u> today, how much rent would you receive?	How much do you pay to rent this dwelling?
---	---	---	---	--

10.5.01	10.5.02 GHS	10.5.03 YEARS	10.5.04a GHS	10.5.04b Unit	10.5.05aGHS	10.5.05b Unit

Phase II Module 10.5 Household Expenditures Codes

10.5.01	10.5.02/03	10.5.04/10.5.05
OWN. 1>>10.5.02 BEINGPURCHASED 2 >>10.5.02 EMPLOYER PROVIDES....3>>10.5.04 FREE, AUTHORIZED....4>>10.5.04 FREE, NOT AUTHORIZED....5>>10.5.04 RENTED ...6>>10.5.05 Don't know/non-response/NA... 98.	Don't know/non-response/NA... 98.	DAY. 1 WEEK...2 MONTH...3 YEAR...4 Don't know/non-response/NA....98

VISIT II - MODULE 10.6: DURABLE GOODS EXPENDITURES (FTF MODULE G6)

	YES=1 NO=2>>Next Item	ITEM CODE	How many [ITEM]s do you own?	What is the age of these [ITEM]s? IF MORE THAN ONE ITEM, AVERAGE AGE.	If you wanted to sell one of these [ITEM]s today, how much would you receive? IF MORE THAN ONE, AVERAGE VAUE.	Did you purchase or pay for any of these [ITEM]s in the last 12 months? Yes=1 No=2>> Next item	How much did pay for all these [ITEM] all together (total) in the last 12 months? GHS
	10.6.01	10.6.02	10.6.03 Number	10.6.04 Year(s)	10.6.05 GHS	10.6.06	10.6.07
Does your household own a [ITEM]?		227-262					
Bed		227					
Table		228					
Chair		229					
Fan		230					
Air conditioner		231					

	YES=1 NO=2>>Next Item	ITEM CODE	How many [ITEM]s do you own?	What is the age of these [ITEM]s? IF MORE THAN ONE ITEM, AVERAGE AGE.	If you wanted to sell one of these [ITEM]s today, how much would you receive? IF MORE THAN ONE, AVERAGE VAUE.	Did you purchase or pay for any of these [ITEM]s in the last 12 months? Yes=1 No=2>> Next item	How much did pay for all these [ITEM] all together (total) in the last 12 months? GHS
	10.6.01	10.6.02	10.6.03 Number	10.6.04 Year(s)	10.6.05 GHS	10.6.06	10.6.07
Radio		232					
Tape or CD/DVD player/VCR		233					
Television		234					
Sewing machine		235					
Kerosene stove		236					
Electric stove; hot plate		237					
Gas stove		238					
Refrigerator		239					
Washing machine		240					
Bicycle		241					
Boat		242					
Moto bike		243					
Tricycle (Motor king)		244					
Car		245					
Mini-bus		246					
Lorry/truck		247					
Donkey cart		248					
Bullock traction equipment		249					
Beer-brewing drum		250					
Upholstered chair, sofa set		251					
Coffee table (for sitting room)		252					
Cupboard, drawers, bureau		253					
Desk		254					

	YES=1 NO=2>>Next Item	ITEM CODE	How many [ITEM]s do you own?	What is the age of these [ITEM]s? IF MORE THAN ONE ITEM, AVERAGE AGE.	If you wanted to sell one of these [ITEM]s today, how much would you receive? IF MORE THAN ONE, AVERAGE VAUE.	Did you purchase or pay for any of these [ITEM]s in the last 12 months? Yes=1 No=2>> Next item	How much did pay for all these [ITEM] all together (total) in the last 12 months? GHS
	10.6.01	10.6.02	10.6.03 Number	10.6.04 Year(s)	10.6.05 GHS	10.6.06	10.6.07
Clock		255					
Iron (for pressing clothes)		256					
Paints		257					
Roofing sheets		258					
Computer equipment & accessories		259					
Satellite dish		260					
Solar panel		261					
Generator		262					

End of Survey

Enumerator:

Thank the HH respondent for his/her patience and cooperation

Instruction for Enumerator: After completing each household, please save your work as draft.

Supervisor: Please review Enumerators work thoroughly, request enumerators to make any changes that is required before submitting the data.

EQ 3 QUALITATIVE INTERVIEW GUIDES

KII WITH URBAN INSTITUTE INTERVIEW GUIDE

Key Informant Interview (KII) with Urban Institute		
Date:	Start Time:	End Time:
Name of Respondent:		
Designation/Position of Respondent:		
Name of Interviewer		

RING/USAID SUPPORT

1. Please describe the different types of support you have provided to the NRCC and the districts to strengthen **district led planning and implementation** of activities in the areas of:

- a. Good Governance

(PROBE: for details on types of support – training, PFM, planning process, budget, work plans, monitoring and supportive supervision and service delivery, etc.

2. Of the direct support provided which did the urban institute find to be the most beneficial to the:

- a. Planning process? (Probe for examples)
- b. Activity implementing process? (Probe for examples)
- c. Monitoring and supportive supervision? (Probe for examples)
- d. Why were these beneficial to the planning and implementing process? (Probe for reasons)

3. Were there any challenges the urban institute faced regarding the support to the regions, districts and departments?

- a. If yes, how were they resolved? (Probe for examples)
- b. How could they have been avoided?

CHANGES RELATED TO USAID/RING SUPPORT

4. Are there any significant changes within the district assemblies/departments that have occurred because of the Urban Institute's support in the areas of **Probe for the areas listed below**

- a. Staff Capacity?
- b. Participatory Planning? Monitoring of Outcomes? Public Finance Management? Engagement of district assembly with departments and agencies at the district level?

- i. Governance

- a. If yes, please describe them, using specific examples when possible for each area mentioned.

- b. Are these changes positive? Why?

5. Please describe the **main** risks that were identified by the USAID assessment of public financial management in the NRCC, district assembly/departments. (Probe for auditing and compliance,

internal control, procurement, ICT, human resource and payroll, cash management and treasury, budget planning)

- a. What were the **main** risk mitigation measures adopted by the district assemblies/departments to respond to the identified risks (e.g., training, new policies or procedures, etc.)
 - b. Has the adoption of the risk mitigation measures had any effect on district planning and implementation process, and outcomes?
 - i. If yes, how?
 - ii. If no, why?
 - c. What lessons can be learned from the risk mitigation process?
6. Overall, has RING support helped improve any district outcomes in the areas of PFM, good governance,?
- a. If yes, how? Please provide examples
 - b. If no, why?
 - c. How are changes in outcomes monitored and reported?

SUSTAINABILITY

7. What changes/results do you think will be sustained after the RING project ends? (Probe for activities and results)
- a. Why? Please explain.
 - b. What changes/results do you think will not be sustained after the RING project ends?
 - c. Why? Please explain.

G2G REPORTING FINANCIAL LIQUIDATION AND DISBURSEMENTS

8. Have the districts faced any challenges in meeting deadlines/ the submission of reports or in receiving approval of reports?

(Probe for: In meeting deadlines, submission of annual work plans, reports, in approval of reports)

- a. If yes, what challenges were faced?
 - b. Do you have any recommendations to overcome or minimize the challenges (in meeting deadlines, submission of annual work plans, reports, in approval of reports)?
9. Have the districts faced any challenges or delays with the disbursement of G2G funds from USAID for the RING supported activities?
- a. If yes, explain?
 - b. In what ways do these challenges affect achieving results in your district/departments? Please explain.
10. Have the districts faced any challenges with the disbursement of funds from the district assembly to decentralized departments for RING project activities?
- a. If yes, explain?

- b. In what ways do these challenges affect achieving results in your district/departments?
Please explain.

11. What recommendations do you have to overcome or minimize challenges to disbursement of funds? **(Probe for recommendations at both levels Q10 and 11)**

Overall

12. If you had the opportunity to change some aspect of the project what would you amend and why?
 - a. What aspect(s) would you eliminate?
 - b. What aspect(s) would you strengthen?
 - c. Do you have any recommendations on how to implement a similar project in the future?
13. What recommendations would you have for USAID when designing another G2G project similar to RING? (Probe recommendations for details)
14. If you had the opportunity to change some aspect of the project what would you amend and why?
 - i. What aspect(s) would you eliminate?
 - ii. What aspect(s) would you strengthen?
15. Do you have any other comments that you would like to add that we have not discussed?

KII USAID STAFF

Key Informant Interview (KII) With USAID Staff		
Date:	Start Time:	End Time:
Name of Respondent:		
Designation/Position of Respondent:		
Name of Interviewer		

CHANGES RELATED TO USAID/RING SUPPORT

1. What is USAID's overall perspective on the performance of the RING project in Ghana?
 - a. Probe: Positive or negative? Effective? Challenging?
 - b. Why?
2. What have been the main successes of the RING project?
 - a. Why do you consider them successes?
3. What have been the most significant challenges with the RING project?
 - a. How were these challenges resolved?
 - b. How could they have been avoided?
4. Were any significant implementation adjustments required since the start of the RING project?
 - a. If yes, why?
 - b. What were the adjustments?
 - c. Did these adjustments help? (Probe to find out ways it worked and ways it did not work).

5. Do you think there have been changes in the level of engagement of the local government since RING started?
 - a. Why? Examples?
 - b. What do you think this engagement has contributed to?
6. Have the region/districts faced any challenges regarding meeting deadlines, submission of annual work plans, reports, in approval of reports?
 - a. If yes, what challenges have they faced?
 - a. In meeting deadlines?
 - b. Submission of annual work plans?
 - c. Submission of reports?
 - d. In approval of reports/procurements etc.?
7. Do you have any recommendations to overcome or minimize these challenges?
8. Has USAID faced any issues in disbursing G2G funds to the region/districts in a timely fashion? (*Timely fashion as stipulated in agreement/contract*)
 - a. If yes, why?
 - b. If yes, how could these issues be overcome?
9. What has USAID learned through the G2G process?
 - a. What would you do differently
 - b. What would you recommend for future projects?
10. What changes/results do you think will be sustained after the RING project ends? (Probe for activities and results)
 - a. Why do you think they will be sustained?
11. Would you recommend the G2G approach be used for similar projects? (Probe for reasons)
 - a. If yes, why?
 - b. If no, why?
12. Do you have any other comments that we have not discussed?

KII RING TA STAFF – COP, GOVERNANCE /PROGRAM MANAGER

Key Informant Interview (KII) With RING Staff		
Date:	Start Time:	End Time:
Name of Respondent:		
Designation/Position of Respondent:		
Name of Interviewer		

CHANGES RELATED TO USAID/RING SUPPORT

1. In general, what did RING set out to achieve under the G2G component of the RING project? (Probe for GC RING Technical Assistance, USAID direct support, District Assembly /Region Contribution)
 - a. Were the planned interventions sufficient to achieve RING's objectives?
 - b. Why or why not?
2. What is your overall perspective on the role and performance of the RING project in Northern Ghana?
 - a. Probe: Positive or negative? Effective? Challenging?
 - b. Why?
3. What have been the main successes of the G2G component of the RING project, notably regarding district level planning, activity implementation, monitoring, and evaluation? (Probe for examples).
4. What have been the major challenges in implementing RING? (Probe for GC RING Technical Assistance, USAID direct support, District Assembly /Region Contribution)
 - a. How were these challenges resolved?
 - b. How could they have been avoided?
5. What have been the major challenges in achieving RING's expected outcomes? (Probe)
 - a. How were these challenges resolved?
 - b. How could they have been avoided?
6. Do you think there have been changes in the level of engagement of the local government since RING started?
 - a. If yes, what are the changes? (Probe).
 - b. If yes, how have these changes affected the district/communities?
 - c. How have these changes contributed to achieving expected outcomes?
7. Has the project empowered the local government?
 - a. If yes, how? If no, why? Examples?
 - b. Is there anything that could be done differently to empower local government better?
 - i. If yes, what could be done differently?
8. Of the RING interventions,
 - a. Which did the NRCC/Districts find most useful to the planning, implementation and M&E process? Why? Please provide examples.
 - b. Which did the NRCC/Districts find least useful to the planning, implementation and M&E process? Why? Please provide examples.
9. Have these interventions helped improve any NRCC/district level RING outcomes in the areas of good governance, WASH, Nutrition or Agriculture & Livelihoods?
 - a. If yes, how? Please provide examples regarding new policies, procedures, etc.

- b. If not, why?
- 10. Were there any challenges the NRCC/districts faced regarding the support provided by GC RING? (Probe for examples)
 - a. If yes, how were they resolved?
 - b. If yes, how could they have been avoided?
- 11. How would you describe the partnership between the region/districts and RING staff?
 - a. What were some of the challenges
 - b. What were some of the successes achieved?
 - c. Do you have suggestions on how the partnership could have been strengthened?
- 12. Overall has RING support helped to improve NRCC/district ability to conduct monitoring and evaluation of interventions within the region/districts
 - a. If yes, how? Please provide examples
 - b. If no, why?
- 13. What are the remaining challenges regarding NRCC/District capacity to conduct monitoring and evaluation of RING interventions?
- 14. What are your recommendations for addressing the challenges of monitoring and evaluation of interventions within the Region/District?
- 15. What recommendations would you have for USAID when designing another G2G project similar to RING? (Probe recommendations for details)
- 16. If you had the opportunity to change some aspect of the project what would you amend and why?
 - i. What aspect(s) would you eliminate?
 - ii. What aspect(s) would you strengthen?

SUSTAINABILITY

- 17. What changes/results do you think will be sustained after the RING project ends? (Probe for activities and results)
 - a. Why do you think they will be sustained?

G2G REPORTING FINANCIAL LIQUIDATION AND DISBURSEMENTS

- 18. Have the districts faced any challenges regarding the achievement of G2G milestones (*meeting deadlines, submission of annual work plans, reports, in approval of reports*)?
- 19. If yes, what challenges have they faced?
 - a. In district achievement of milestones?
 - b. In approvals of district milestone reports
- 20. Do you have any recommendations to overcome or minimize these challenges?
- 21. Have the region/districts faced any challenges with the disbursement of G2G funds?
 - a. If yes, please describe.

- b. If yes, how could these challenges be overcome or minimized?

OVERALL

22. What lessons have been learned from the implementation of the RING Project?
23. Do you have any other comments that we have not discussed?

KII RING TA STAFF – NUTRITION ADVISOR

Key Informant Interview (KII) With RING Staff	
Date:	Time:
Name of Respondent:	
Designation/Position of Respondent:	
Name of Interviewer	

1. In general, what did RING set out to achieve under the Nutrition component of the RING project? (Probe for GC RING Technical Assistance, USAID direct support, District Assembly /Region Contribution)
 - a. Were the planned interventions sufficient to achieve RING's objectives?
 - b. Why or why not?
2. What is your overall perspective on the role and performance of the RING project in Northern Ghana?
 - a. Probe: Positive or negative? Effective? Challenging?
 - b. Why?
3. Are there any significant changes within the district assemblies/departments that have occurred because of RING's support in the areas of **Probe for the areas listed below**
 - a. Staff Capacity?
 - b. Participatory Planning? Monitoring of Outcomes? Engagement of district assembly with departments and agencies at the district level?
 - c. If yes, please describe them, using specific examples when possible for each area mentioned.
 - d. Are these changes positive? Why?
4. Overall has RING support helped to improve NRCC/district ability to conduct nutrition interventions within the region/districts
 - a. If yes, how? Please provide examples
 - b. If no, why?
5. Have these interventions helped improve any NRCC/district level RING outcomes in the areas of **Nutrition**?
 - a. If yes, how? Please provide examples regarding new policies, procedures, etc.
 - b. If not, why?

6. What have been the major challenges in **implementing** RING's Nutrition Component? (Probe for GC RING Technical Assistance, USAID direct support, District Assembly /Region Contribution)
 - a. How were these challenges resolved?
 - b. How could they have been avoided?
7. What have been the major challenges in **achieving** RING's Nutrition expected outcomes? (Probe)
 - a. How were these challenges resolved?
 - b. How could they have been avoided?
8. What are the remaining challenges regarding NRCC/District capacity to conduct nutrition interventions?
9. What are your recommendations for addressing the challenges of implementing nutrition interventions within the Region/District?
10. What recommendations would you have for USAID when designing another G2G project similar to RING? (Probe recommendations for details)
11. If you had the opportunity to change some aspect of the project what would you amend and why?
 - i. What aspect(s) would you eliminate?
 - ii. What aspect(s) would you strengthen?
12. What changes/results do you think will be sustained after the RING project ends? (Probe for activities and results)
 - a. Why do you think they will be sustained?
13. What lessons have been learned from the implementation of the RING Project?
14. Do you have any other comments that we have not discussed?

KII RING TA STAFF – LIVELIHOODS ADVISOR

Key Informant Interview (KII) With RING Staff	
Date:	Time:
Name of Respondent:	
Designation/Position of Respondent:	
Name of Interviewer	

- I. In general, what did RING set out to achieve under the Agriculture & Livelihoods component of the RING project? (Probe for GC RING Technical Assistance, USAID direct support, District Assembly /Region Contribution)
 - a. Were the planned interventions sufficient to achieve RING's objectives?
 - b. Why or why not?

2. What is your overall perspective on the role and performance of the RING project in Northern Ghana?
 - a. Probe: Positive or negative? Effective? Challenging?
 - b. Why?
3. Are there any significant changes within the district assemblies/departments that have occurred because of RING's support in the areas of **Probe for the areas listed below**
 - a. Staff Capacity?
 - b. Participatory Planning? Activity Implementation, Monitoring of Outcomes? Engagement of district assembly with departments and agencies at the district level?
 - c. If yes, please describe them, using specific examples when possible for each area mentioned.
 - d. Are these changes positive? Why?
4. Overall has RING support helped to improve NRCC/district ability to conduct Agriculture & Livelihoods interventions within the region/districts
 - c. If yes, how? Please provide examples
 - d. If no, why?
5. Have these interventions helped improve any NRCC/district level RING outcomes in the areas of Agriculture & Livelihoods?
 - a. If yes, how? Please provide examples regarding new policies, procedures, etc.
 - b. If not, why?
6. What have been the major challenges in **implementing** RING's Agriculture & Livelihoods? (Probe for GC RING Technical Assistance, USAID direct support, District Assembly /Region Contribution)
 - a. How were these challenges resolved?
 - b. How could they have been avoided?
7. What have been the major challenges in achieving RING's Agriculture & Livelihoods expected outcomes? (Probe)
 - a. How were these challenges resolved?
 - b. How could they have been avoided?
8. What are the remaining challenges regarding NRCC/District capacity to conduct Agriculture & Livelihoods interventions?
9. What are your recommendations for addressing the challenges of implementing Agriculture & Livelihoods interventions within the Region/District?
10. What recommendations would you have for USAID when designing another G2G project similar to RING? (Probe recommendations for details)
11. If you had the opportunity to change some aspect of the project what would you amend and why?

- i. What aspect(s) would you eliminate?
 - ii. What aspect(s) would you strengthen?
- 12. What changes/results do you think will be sustained after the RING project ends? (Probe for activities and results)
 - a. Why do you think they will be sustained?
- 13. What lessons have been learned from the implementation of the RING Project?
- 14. Do you have any other comments that we have not discussed?

KII RING TA STAFF – WASH ADVISOR

Key Informant Interview (KII) With RING Staff	
Date:	Time:
Name of Respondent:	
Designation/Position of Respondent:	
Name of Interviewer	

1. In general, what did RING set out to achieve under the WASH component of the RING project? (Probe for GC RING Technical Assistance, USAID direct support, DA/Region Contribution)
 - a. Were the planned interventions sufficient to achieve RING's objectives?
 - b. Why or why not?
2. What is your overall perspective on the role and performance of the RING project in Northern Ghana?
 - a. Probe: Positive or negative? Effective? Challenging?
 - b. Why?
3. Are there any significant changes within the district assemblies/departments that have occurred because of RING's support in the areas of **Probe for the areas listed below**
 - a. Staff Capacity?
 - b. Participatory Planning? Activity Implementation, Monitoring of Outcomes? Engagement of district assembly with departments and agencies at the district level?
 - c. If yes, please describe them, using specific examples when possible for each area mentioned.
 - d. Are these changes positive? Why?
4. Overall has RING support helped to improve NRCC/district ability to conduct WASH interventions within the region/districts
 - e. If yes, how? Please provide examples
 - f. If no, why?
5. Have these interventions helped improve any NRCC/district level RING outcomes in the areas of WASH?

- a. If yes, how? Please provide examples regarding new policies, procedures, etc.
 - b. If not, why?
 6. What have been the major challenges in **implementing** RING's WASH interventions? (Probe for GC RING Technical Assistance, USAID direct support, District Assembly /Region Contribution)
 - a. How were these challenges resolved?
 - b. How could they have been avoided?
 7. What have been the major challenges in **achieving** RING's WASH expected outcomes? (Probe)
 - a. How were these challenges resolved?
 - b. How could they have been avoided?
 8. What are the remaining challenges regarding NRCC/District capacity to conduct WASH interventions?
 9. What are your recommendations for addressing the challenges of implementing WASH interventions within the Region/District?
 10. What recommendations would you have for USAID when designing another G2G project similar to RING? (Probe recommendations for details)
 11. If you had the opportunity to change any aspect of the project what would you amend and why?
 - i. What aspect(s) would you eliminate?
 - ii. What aspect(s) would you strengthen?
 12. What changes/results do you think will be sustained after the RING project ends? (Probe for activities and results)
 - a. Why do you think they will be sustained?
 13. What lessons have been learned from the implementation of the RING Project?
- Do you have any other comments that we have not discussed?

ANNEX I: CODEBOOK

Evaluation Question 1 and 2 qualitative codebook

Name	Description
Access	All issues on Access shall be coded under the Access and its sub nodes
Access Sanitation and Hygiene	Contains issues around access to sanitation and hygiene
Access to Diverse Food	contains all issues around access to diverse food
Access	Contains issues on general access
Food Consumption Challenges	Contains issues on food consumption challenges under access to food consumption
Access to Water	Contains issues around access to water
Free Node	All other issues not listed as codes shall fall under the free nodes
Interventions	A broad heading where all issues on interventions can be found under this node
Challenges	Challenges faced by communities to improve their Health and Nutrition Status
Effects of Interventions	Outlines all effects of the interventions
Access and Obtainment of HH Assets	All effects around access and obtainment of Household assets and hygiene issues, handwashing should be coded under this node
Adoption of New Behaviour	All effects impact on the adoption of new behaviour should be coded under this node
Health Status	All effects on health status should be coded under this node
Target Vs. Non-Target	Difference between Target and non-Target communities health status
Household Consumption	Code all effects on household consumption issues under this node
Increased Household Income	Code all increased household income issues from transcripts here
Nutritional Status	Code all effects on the nutritional status under this Node
Other Effects	Other Effects not mentioned
Most Beneficial Intervention	The Intervention mentioned as most beneficial are reported in this node
Other Non-USAID Interventions	All interventions and actions by Non-USAID Donors are reported in this node
Problems with Interventions	Code all issues on problems with interventions under this node
Sustainability of Interventions	All issues related to sustainability of interventions are coded under this node
Types of Interventions	The various types of interventions implemented are reported under this node
LEAP	All LEAP related issues are coded in this node
Recommendation	All recommendations are coded under this node
Role of District Level Officers	Roles of Key Informants at the district level

Research Question 3 qualitative Codebook

Name	Description
Changes Related to USAID GC RING Support	Discusses significant changes and improvements related to USAID GC RING Support
Areas of Significant Changes and Improvements	Header that holds sub nodes for areas of significant changes and improvements
Agric	Discusses areas of significant Change/improvements related to the Agriculture Intervention
Engagement of NRCC /DA with Depts & Agencies	Discusses areas of significant Change/improvements related to the engagement of the NRCC and or District assemblies with departments and agencies
Good Governance	Discusses Areas of Significant change under good governance, Issues on the governance advisor - Public finance management can be placed here
Livelihoods	Discusses areas of significant Change/improvements related as VSLA
Logistics	Discusses areas of significant changes with the provision of logistics
M and E and Supportive Supervision	Discusses areas of significant change under M and E and supportive supervision

Name	Description
Recommendations	Recommendations for improving M and E
Remaining Challenges M& E	Remaining Challenges for M and E are Discussed under this node
Nutrition	Discusses areas of significant change under nutrition intervention
Participatory Planning	Discusses areas of significant change under participatory planning
Staff Capacity	Discusses areas of significant change related to staff capacity
CAPS Harmonisation Process	Code all issues related to the Community Action Plans harmonization Process under this node
Lessons Learned	Lessons learned from the CAPS Harmonization Process
Community Priorities for improved Nutrition Changes	Discusses all community priorities for improved nutrition changes
After	How Districts are currently responding to community priorities for improved nutrition
Improved Coverages	Issues about improved coverages of interventions
Improved Data Utilization	Issues on improved data utilization
Before	How Districts responded to community prioritisation for improved Nutrition
Lessons Learned	Discusses all lessons learned
RISK Mitigation Measures	Discusses Risk Mitigation, Measures Identified
Issues Identified	All issues identified as risks are to be coded here
Measures Adopted	All measures adopted to address the risks
Effects of Risk mitigation measures	The outcome of the risk mitigation measures adopted
Lessons Learned Risk Mitigation Measures	All lessons learned related to the RISK mitigation process.
G2G reporting Financial Liquidation and Disbursements	Discusses all issues with G2G Reporting, Financial Liquidation and Disbursements
Challenges at District Level	Heading for Challenges at the District Level
Disbursement of G2G	All challenges related to the disbursement of G2G at the District level
Districts and NRCC to Departments Disbursements	Challenges on Disbursements from Districts and NRCC to Departments
USAID to Districts and NRCC Disbursement	Challenges with the disbursement of G2G Funding from USAID to the Districts and
Meeting Deadlines	All Challenges related to meeting deadlines
Report Submission	All challenges related to report submission at the district level
Challenges at NRCC Level	All challenges on financial liquidation and disbursement at the NRCC/ Regional Level
Disbursement of G2G	All challenges at the regional level related to the disbursement of G2G
NRCC to Departments Disbursements	All challenges with the disbursement of G2G from the region to the various departments at the region;
USAID to Districts and NRCC Disbursement	Challenges with the disbursement of funds from USAID to the NRCC
Meeting Deadlines	All challenges with meeting deadlines at the regional level
Report Submission	All challenges related with the submission of reports at the regional level
How challenges affected Results	Discusses the effect of the challenges on results
Recommendations to Minimize Challenges	Recommendations to minimize challenges with G2G reporting, Financial Liquidation and disbursement at the Region and District Level
General project Comments	The general projects comments of the tool is coded under this session
Any other comments	Any other general comments made by the respondent
Areas to be removed	Areas of the RING Project that respondent will like cancelled
Areas to be strengthened	Any areas of the RING Project the Respondent will like Strengthened
project areas to be changed	Areas that the respondent will like to be modified
Recommendations for addressing these challenges	Any recommendations for addressing the remaining challenges
Remaining challenges	The remaining Challenges for the RING Project
Other	

Name	Description
USAID GC RING Partnership and Sustainability	Discusses USAID GC RING Partnership and Sustainability
Areas of Partnership	
Areas of Partnership With RING	Discusses areas that respondent's institution has partnered with the GC RING Project
Areas of Partnership with USAID	Content should be areas that the respondent's institution has partnered with USAID
Challenges	Content should be challenges encountered with the partnership
Good Practices	List all good/positive practices mentioned with the partnership with USAID and GC RING
Lessons Learned	Lessons learned from the Region/ District Partnership with USAID, AND GC RING partnership
Suggestions for Improvements	Suggestions for Improving the Partnership between the District/Region and USAID GC RING
Sustainability	
Recommendations to USAID	Recommendations on Sustainability to USAID
Strengths and Weaknesses of USAID Approach	The strengths and weaknesses of the USAID Approach in implementing the RING Projects
Sustainable results Changes	List all results, gains or changes mentioned that can be sustained after project duration
Unsustainable Results and Changes	Refers to changes or results which cannot be sustained after the project's duration
USAID RING SUPPORT	Overall Heading. Focus on USAID RING Support
Areas of Partnership	
Challenges	Types, Resolved, how it could be avoided
Fund Flow	Issues around the disbursement of funding or the flow of funds
Staff attrition	Issues around staff attrition
Most Beneficial Support	Most beneficial support in terms of Planning, activity implementation, M and E and Supportive supervision
Activity Implementation	Most Beneficial Support for Activity Implementation
Monitoring and Evaluation Supportive supervision	Most Beneficial Support for M & E Supportive supervision
Planning Process	Most Beneficial Support for the planning Process
Types of Support	
Agric & Livelihood Support	Support provided for the Agriculture and livelihood Interventions
Capacity building & training	Support provided for training, mentoring, supportive supervision and other capacity building initiatives
Good Governance	Support provided aimed at improving good governance. The role of the governance advisor is coded under the sub theme
Logistics	Relates to all Logistical Support provided
Nutrition Support	Support provided for Nutrition specific interventions
WASH	Support provided related to WASH interventions

ANNEX J: DISCLOSURE OF COI FORMS

Name	Obed Ebo Asamoah
Title	Team Leader
Organization	MSI – Evaluate for Health
Evaluation Position?	☒ Team Leader ☐ Team member
Evaluation Award Number (contract or other instrument)	AID-641-Q-14-00001 / AID-641-TO-17-00002
USAID Project(s) Evaluated (Include project name(s), implementer name(s) and award number(s), if applicable)	Overall nutrition results from RING, SPRING, W4H and LEAP
I have real or potential conflicts of interest to disclose.	☐ Yes ☒ No

If yes answered above, I disclose the following facts:

Real or potential conflicts of interest may include, but are not limited to:

1. Close family member who is an employee of the USAID operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated.
2. Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation.
3. Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project.
4. Current or previous work experience or seeking employment with the USAID operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated.
5. Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated.
6. Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation.

Name:	[REDACTED]
Title:	Technical manager
Organization:	MSI
Evaluation Position?	☐ Team Leader ☒ Team member
Evaluation Award Number (contract or other instrument)	AID-641-Q-14-00001 / AID-641-TO-17-00002

USAID Project(s) Evaluated (Include project name(s), implementer name(s) and award number(s), if applicable)	Overall nutrition results from RING, SPRING, W4H and LEAP
I have real or potential conflicts of interest to disclose.	☐ Yes ☒ No
If yes answered above, I disclose the following facts: Real or potential conflicts of interest may include, but are not limited to: 7. Close family member who is an employee of the USAID operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated. 8. Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation. 9. Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project. 10. Current or previous work experience or seeking employment with the USAID operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated. 11. Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated. 12. Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation.	