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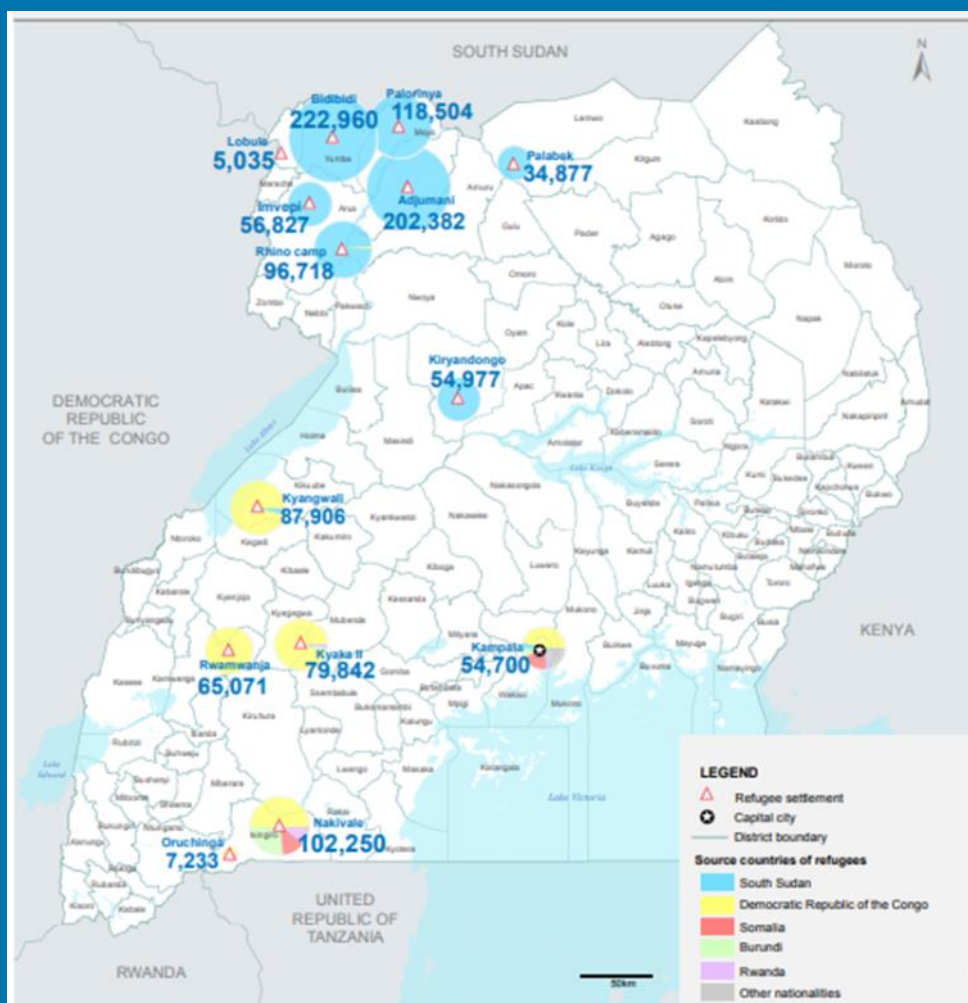
Fill the Nutrient Gap Uganda

REFUGEE SETTLEMENTS SUMMARY REPORT



March 2019

Figure 1. Location, size and origin of refugee settlements in Uganda (UNHCR, 2018).





Fill the Nutrient Gap Refugee Settlements | SUMMARY REPORT

Refugee Settlements in Uganda: Introduction

Uganda hosts a total of 1,190,922 refugees (December 2018). Around 68 percent (790,000) are South Sudanese, 25 percent (310,000) from the Democratic Republic of Congo and the other 7 percent (90,000) are predominantly from Burundi, Somalia and Rwanda. The majority of refugees are children under the age of 18 (725,000), and around 600,000 of all refugees are girls and women. Seventy percent of refugees, mostly South Sudanese, reside in the North East of the country in the regions of West Nile and Acholi. The other 30 percent reside in the South West of the country, in the regions of Bunyoro, Ankole and Tooro as shown in Figure 1.

Uganda has one of the most favourable and progressive refugee assistance programmes in the world, with freedom of movement, work rights, and land officially set aside for refugees to farm. The country demonstrates how a progressive refugee policy is economically and socially advantageous for both refugees and their host communities. As a guiding principle, approximately 30 percent of the resources for supporting refugees is also aimed at benefiting host communities.

Unfortunately, malnutrition is widespread across the refugee settlements and their hosting districts. Wasting and stunting are as high as 8 percent and 20 percent respectively in the refugee settlements, and 8 percent and 26 percent respectively in the host population. The high prevalence of stunting is compromising the opportunities for children to reach their cognitive and physical potential. The burden of malnutrition varies across the settlements and host communities, with a difference in patterns between the West Nile and South West areas. Common factors and contributors across settlements and host communities are poor land and food availability, a lack of

livelihood investment outside agriculture, and unaffordability of nutritious food.

Addressing malnutrition in a sustainable manner in these areas must take a lifecycle approach with a particular focus on children under 2 years of age, adolescent girls, and pregnant and lactating women. It must include a range of context-specific, targeted interventions that engage stakeholders across multiple sectors.

Fill the Nutrient Gap (FNG) in Uganda: Purpose

The overarching objective of the FNG was to bring stakeholders together to identify and prioritise context-specific policies and programmes aimed at improving nutrient intakes of target groups across food, health and social protection systems. Targets were defined as the first 1,000 days from conception to the second birthday, adolescent girls, and pregnant and lactating women. The results from the national FNG will be used to inform and complement the Uganda Nutrition Action Plan II. The FNG team in the World Food Programme (WFP) Country Office also identified a need for two additional FNG analyses that would be used to inform WFP and stakeholder programmes in Karamoja and the refugee settlement areas.

For the refugee settlement areas, the analysis will be used to inform WFP and wider stakeholder programming, including recommendations on beneficiary targeting and transfer modalities. The FNG analysis also identified the current knowledge gaps in these areas so that assessments can be undertaken to address these, ensuring that refugee programme design is evidence-based. The FNG process brought stakeholders together to share their programming experiences within these areas, and to identify priority nutrition-specific and -sensitive interventions.

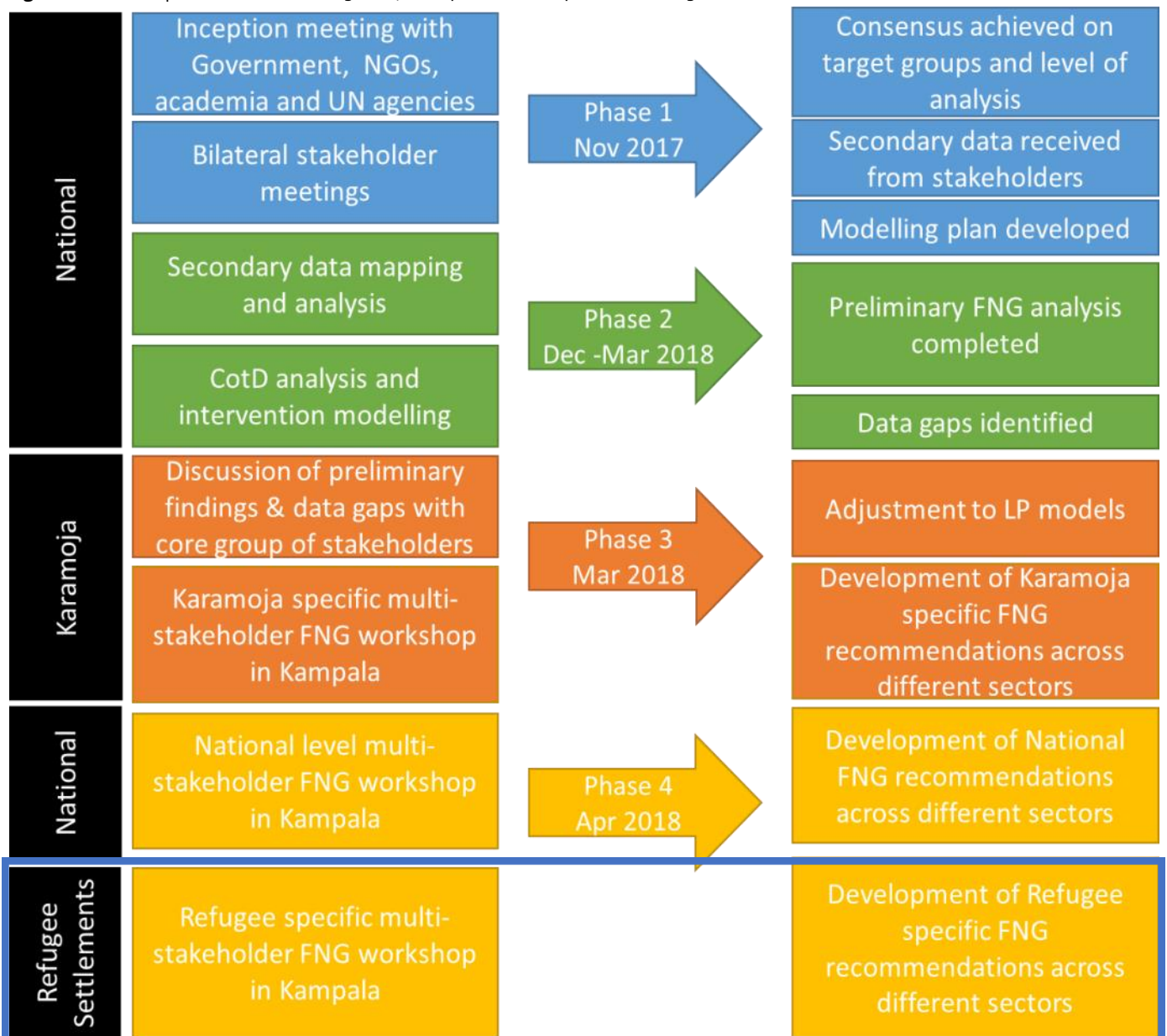
FNG in the Refugee Settlements: Process

The FNG process in the refugee settlements ran from November 2017 to April 2018. The analysis comprised a comprehensive literature review of available secondary data sources in combination with linear programming (LP) using the Cost of the Diet (CotD) software. The aim was to understand context-specific barriers to adequate nutrient intake and to model potential interventions to improve access to nutrients, particularly from nutritious foods.

At the start of the process, the Uganda FNG team met with non-government organisations and United Nations (UN) and development partners working in the settlements to:

introduce the FNG process; collate secondary data sources and; identify possible interventions, entry points and transfer modalities to test in the CotD modelling. Over 70 data sources were identified and reviewed and a number of data gaps were identified, as discussed in the findings. The linear programming (LP) analysis intervention modelling was carried out and the full findings were first presented internally to all units within the WFP country office working in the refugee settlements, then to the wider stakeholder group as part of a workshop to formulate recommendations. The detailed FNG process in Uganda is illustrated in Figure 2.

Figure 2: The FNG process followed in Uganda, with particular emphasis on refugee settlements.



FILL THE NUTRIENT GAP: SITUATION ASSESSMENT FOR MULTI-SECTORAL DECISION MAKING ON THE PREVENTION OF MALNUTRITION¹

Malnutrition has two direct causes: inadequate nutrient intake and disease. As its name specifies, the Fill the Nutrient Gap (FNG) assessment focuses on gaps in nutrient intake to inform a country's national policies and actions that can be taken to improve nutrition among their population, with a focus on the most vulnerable.

The FNG assesses the extent to which people have choices. It considers the availability, physical access and affordability of nutritious foods required for adequate nutrient intake. It seeks to understand why households make the food choices they do. Finally, it identifies context-appropriate interventions that can be implemented by different sectors to enable people to choose more nutritious foods, and hence fill nutrient gaps.

The assessment comprises two components:

1. A country-specific review of secondary data and information on factors that reflect or affect dietary intake. This includes malnutrition trends over time, characteristics of the food system and food environment, and population behaviour related to food and feeding.
2. An assessment of the extent to which economic barriers prevent adequate nutrient intake. This uses the Cost of the Diet linear programming

software developed by Save the Children (UK), and includes modelling of the economic impact of possible interventions to increase nutrient intake and fill nutrient gaps.

Malnutrition cannot be addressed by one sector alone. FNG is designed to inform multisectoral decision-making and therefore engages stakeholders from all sectors including food, health, agriculture, education, and social protection systems throughout the assessment.

It is the stakeholders who define the scope and focus of the assessment. They contribute data and sources of information for identification of context-specific barriers and entry points, and develop a shared understanding of the issues and possible solutions. They then identify appropriate nutrition-specific and nutrition-sensitive interventions that can be implemented by different sectors using their existing delivery platforms. These could be social safety nets, food processing and markets, antenatal care, school feeding programmes and others.

The FNG assessment has been developed by the WFP with technical support from: The University of California Davis; the International Food Policy Research Institute (IFPRI, Washington DC); Epicentre (Paris); Harvard University (Boston); Mahidol University (Bangkok); Save the Children (UK); and UNICEF.

At the end of 2018, the FNG had been conducted in 17 countries and started in another 8.

¹ For more information on the concept and the method of the analysis, see Bose I, Baldi G, Kiess L, de Pee S. The 'Fill the Nutrient Gap' Analysis: An approach to strengthen nutrition situation analysis and decision-making toward multisectoral policies and systems change. *Matern Child Nutr* 2019; DOI: 10.1111/mcn.12793

COST OF THE DIET ANALYSIS

The CotD software uses LP to understand the extent to which poverty, food availability and prices may affect the ability of people to meet their nutrient needs. Using price data collected from markets or from secondary sources, the software calculates the amount, combination and cost of local foods that are needed to provide individuals or households with their average needs for energy and their recommended intakes of protein, fat and micronutrients². These diets are calculated within defined constraints to prevent the inclusion of unrealistic types or amounts of food and the provision of excessive amounts of nutrients.

The FNG approach defines the Staple Adjusted Nutritious Diet: the lowest cost nutritious diet that includes the typical staple foods and excludes foods that are considered taboo³. This diet is referred to as the 'nutritious' diet throughout this summary. Population expenditure data is compared to the cost of this nutritious diet and is used to estimate the proportion of the population that would not be able to afford a nutritious diet. This unaffordability can be estimated and compared across different regions, seasons or countries.

As part of the FNG process in Uganda, a separate CotD analysis was undertaken for each of 15 sub-regions as defined by the Uganda Demographic and Health Survey (UDHS). The locations of the refugee settlements fall within five of these regions. The 2016

Panel Survey was used to assess food prices and availability, staple preferences, food expenditure and average household size. A nutritious diet was estimated for a model household of five members which included a child of 12–23 months, a child of 6–7 years, an adolescent girl of 14–15 years, a lactating woman and an adult man. Two portions of the staple foods were included for all household members per day, with the exception of the child aged 12–23 months, who received one portion per day⁴.

The CotD software is also used to model interventions with the objective of improving the affordability of a nutritious diet for individuals and/or households. The selection of potential interventions for modelling was informed by the secondary data review and stakeholder consultations. It included:

- Increased availability of local nutritious (unfortified) foods and biofortified foods.
- Different types of complementary foods or specialized nutritious foods made available through the market and/or social safety nets.
- Micronutrient supplementation.
- Fortification of staple foods.
- Determine adequate cash transfer values for vulnerable households targeted through social protection safety nets programmes.

The modelled interventions are theoretical and would need to be accompanied by complementary behaviour change interventions.



² As defined by the Food and Agriculture Organization (FAO) and the World Health Organization (WHO). The need for 9 vitamins and 4 minerals is included.

³ This diet is not intended to reflect what individuals or households are currently eating, nor should it be used to develop food-based recommendations or dietary guidelines.

⁴ Please refer to the full report for the list of staple preferences applied.

FNG in Refugee Settlements: Findings⁵

1.

UNDERNUTRITION VARIES BETWEEN THE WEST NILE AND SOUTH WEST SETTLEMENTS AND IS INFLUENCED BY CASELOAD AND, POSSIBLY, THE REFUGEES' COUNTRY OF ORIGIN. OVERALL THERE IS LITTLE DIFFERENCE IN MALNUTRITION RATES BETWEEN THE REFUGEES AND THE HOST POPULATION.

A progressive resettlement strategy and substantial donor and Government investment has benefitted infant and young child nutrition in the refugee settlement areas. Overall, stunting and wasting are of medium public health significance at 20 percent and 8 percent respectively. Anaemia, however, remains a severe public health concern at 42 percent. The situation in the settlements is ever-changing. In 2017 Uganda experienced an influx of 376,000 refugees. Although the prevalence of stunting and wasting did not change substantially, the caseload for stunting almost doubled whilst the caseload for wasting more than doubled. Using prevalence in an environment that undergoes continuous change may therefore mask the magnitude of the problem.

Figures 3, 4 and 5 show that child undernutrition in the settlements varies geographically. Stunting is higher in the South West whilst wasting and anaemia are higher in the West Nile. This is influenced by the type of refugees the settlements host. South Sudanese, who reside in the West Nile, tend to have higher wasting and lower stunting

Figure 3: The prevalence of stunting in children under 5 years of age in the refugee settlements and host population. Triangles indicate refugee settlements (WFP and UNHCR, 2017).

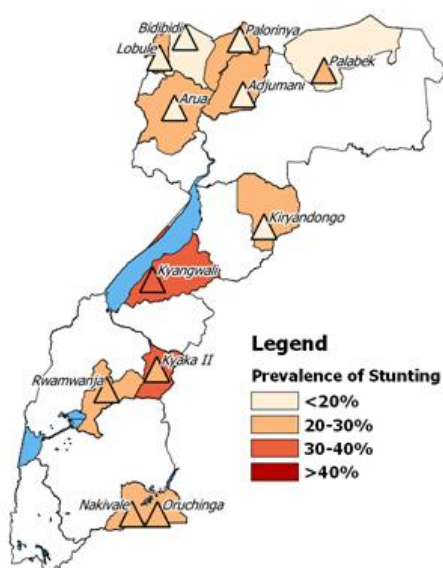


Figure 4: The prevalence of wasting in children under 5 years of age in the refugee settlements and host population. Triangles indicate refugee settlements (WFP and UNHCR, 2017).

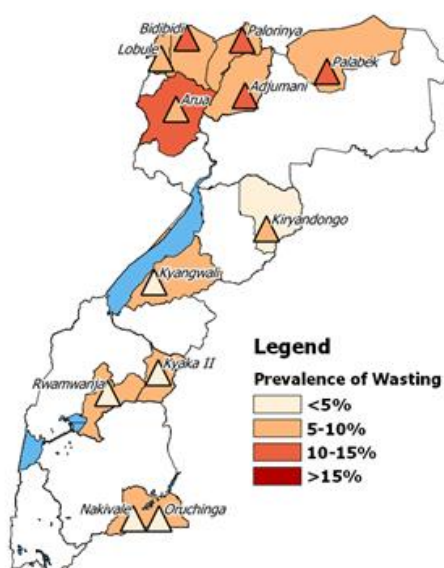
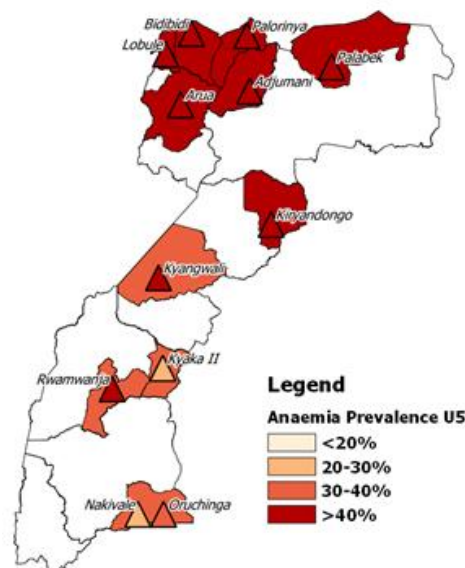


Figure 5: The prevalence of anaemia in children under 5 years of age in the refugee settlements and host population. Triangles indicate refugee settlements (WFP and UNHCR, 2017).



compared to the host communities. The opposite is seen in refugees from Rwanda, Burundi and the Democratic Republic of Congo, who reside in the South West.

These figures also show that the difference in child undernutrition between the host and refugee populations varies. The host communities tend to have higher or the same rates of stunting compared to the refugees throughout the country, and higher rates of anaemia and wasting in the South West. This could be indicative of access to Maternal, Child Health and Nutrition (MCHN) services, which might be better for the refugee settlements. However, the host communities have lower levels of wasting in West Nile and anaemia in South West, which may be indicative of better access to nutritious foods through markets or own production. When these data are aggregated across the country, however, very little difference exists between the host and refugee populations.

There are data gaps for the following information:

- the cause of anaemia prevalence in Uganda (i.e. micronutrient deficiencies, malaria, worms or haemoglobin disorders such as sickle-cell disease);
- women's Body Mass Index and;
- undernutrition by a refugee's country of origin.

⁵ Complete details of the findings, a full list of data sources used, and references can be found in the full report.

2.

BREASTFEEDING PRACTICES ARE ADEQUATE AND SIMILAR IN THE REFUGEE SETTLEMENTS AND HOSTING DISTRICTS. COMPLEMENTARY FEEDING PRACTICES ARE NOT OPTIMAL AND MINIMUM ACCEPTABLE DIET (MAD) FOR CHILDREN IN REFUGEE SETTLEMENTS HAS NOT BEEN COLLECTED SINCE 2015. NO DATA WAS FOUND ON THE DIETS OF ADOLESCENT GIRLS AND WOMEN.

Data from the 2017 Food Security and Nutrition Assessment (FSNA), conducted by WFP and United Nations High Commissioner for Refugees (UNHCR), suggests that breastfeeding practices are adequate in both the refugee settlements and host communities, as shown in Figure 6. Timely initiation and exclusive breastfeeding is higher in the host district whilst continued breastfeeding at two years is virtually the same.

The timely introduction of complementary foods is low at 54 percent for both the settlement and host communities, although data does suggest that children are being fed high-iron foods. Data on exclusive breastfeeding under 6 months shows that 27 percent and 17 percent of children in the settlement and host population respectively are being introduced to solid, semi-solid or soft foods too soon, whilst the remainder of children are likely to be fed these foods too late. Data on MAD, which gives an indication of both meal frequency and dietary diversity for children under the age of 2 years, has not been collected within the FSNA in settlements since 2015. Other sources of this data could not be found. The 2015 results indicate that refugee children's diets are very poor with only 3 percent in the West Nile and 1 percent in the South West achieving MAD. Achieving Minimum Dietary Diversity (MDD) is a greater barrier than achieving Minimum Meal Frequency (MMF), but both indicators are low. In West Nile 50 percent of children achieved MMF whilst 21 percent

achieved MDD. For South West these figures were 58 percent and 28 percent for MMF and MDD respectively. It is vital that these data continue to be collected in conjunction with formative research to better understand the barriers to adequately feeding young children in the refugee settlements.

Little information could be found on women's diets. MDD for Women is an important indicator to understand the nutrient quality of this vulnerable group's diets and should be collected.

3.

CONSUMPTION OF NUTRITIOUS FOODS IS LOW IN THE REFUGEE SETTLEMENT AREAS, BUT THE DATA IS INCONSISTENT. CONSUMPTION OF NUTRITIOUS FOODS IS LIKELY INFLUENCED BY AVAILABILITY AND PRICE.

The 2016 FSNA found that the majority (76 percent in West Nile and 81 percent in South West) of refugee households had an acceptable food consumption score. However, other indicators suggest that dietary diversity is very low with only 18 percent and 13 percent of households achieving a High Dietary Diversity Score (≥ 6 food groups) in West Nile and South West respectively. Figure 7 shows that a high percentage of households in both the host and refugee populations (although higher for refugees) reported not consuming vegetables, fruit, meat, eggs, fish and milk during the previous seven days. These foods were identified by the CotD analysis and are critical to meet essential micronutrient needs such as vitamin A, vitamin B12, iron and calcium.

Figure 6: Infant and Young Child Feeding practices of children in the refugee settlements and host communities (WFP and UNHCR, 2017).

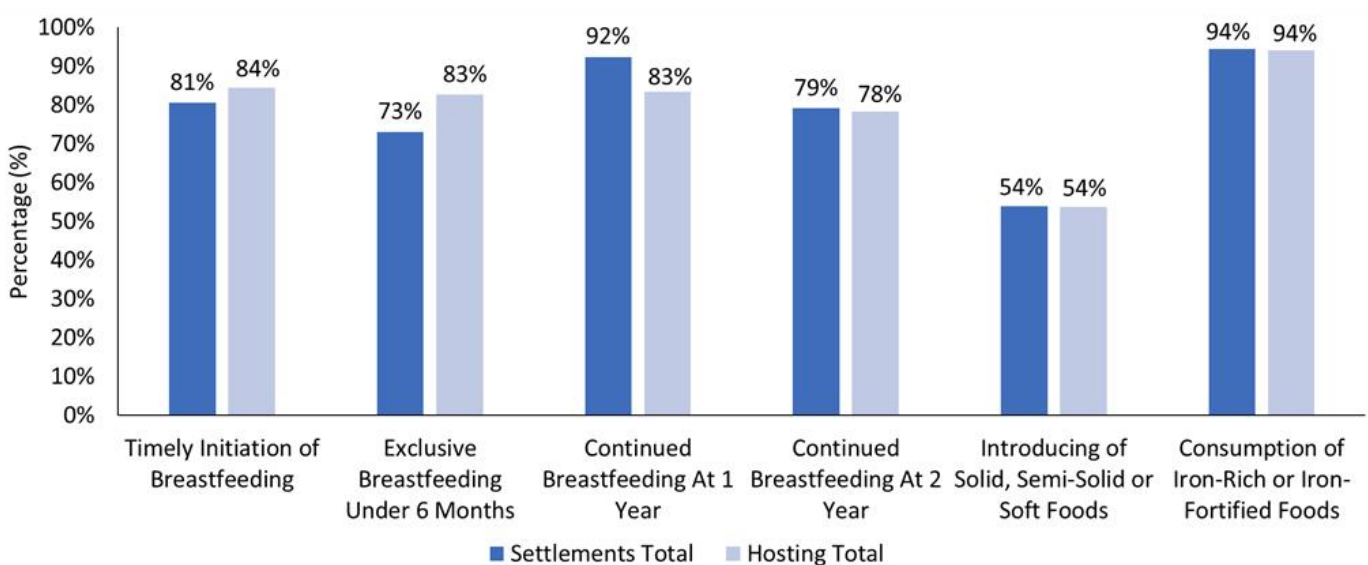
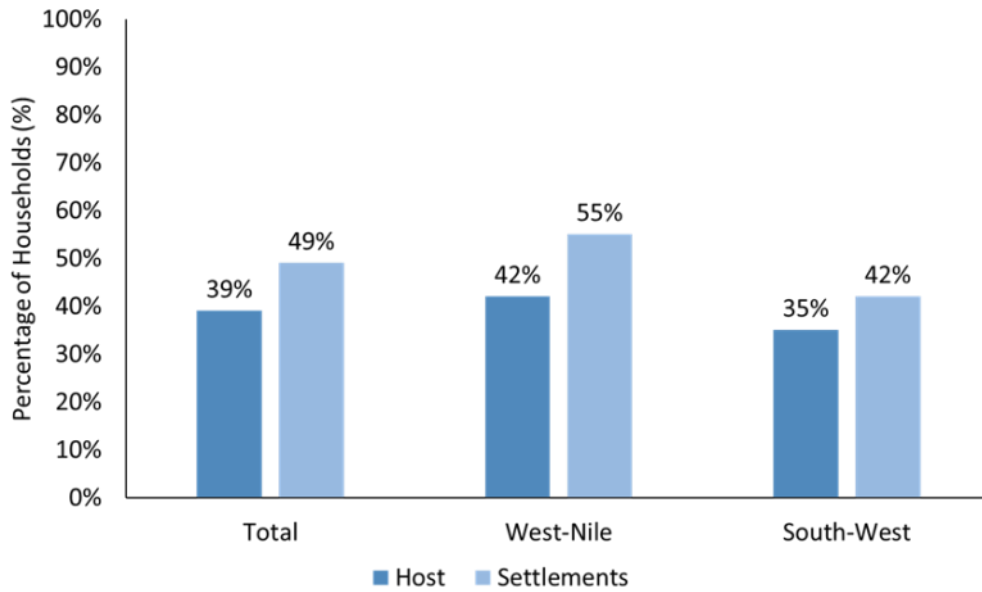


Figure 7: The percentage of households that reported not consuming vegetables, fruit, meat, eggs, fish and milk during the previous seven days in the host and refugee settlement populations (WFP and UNHCR, 2017).

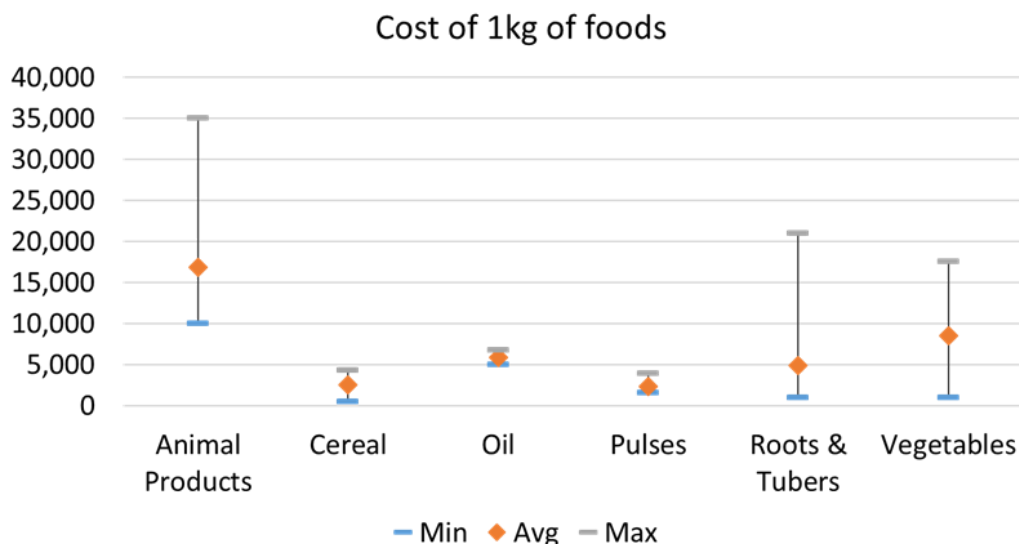


Little data exists on the availability, seasonality and price of nutritious foods in refugee settlements but what does, suggests that there is great variability between the settlements. Animal products are the least available and most expensive. This is highlighted by Figure 8 which shows that animal products are much more expensive than other commodities. The reported accessibility of vegetables and tomatoes is also highly variable, and the range in their price per 1kg reflects this.

Uganda has one of the most progressive refugee policies in the world. When requested, they provide refugees with access to land for their homesteads as well as for agricultural production. However, over the last few years the land size granted to refugees to inhabit has reduced from about 100x100m to 30x30m. Many refugee households report not having access to land for food production beyond their homesteads. This is particularly high in Bidibidi and Adjumani settlements, where 92 percent and 94 percent of households reported having no productive land. Those that do have land grow staple foods such as sorghum, maize, millet and sweet potatoes, as well as nutritious, fresh foods such as vegetables, beans and cowpeas. However, yields are low and the supply chain is weak, making it difficult for people to link to markets and cooperatives for storing, transporting and selling products. This means that production is not a viable livelihood opportunity.

4. INTEGRATING REFUGEES INTO AGRICULTURE THROUGH LAND PROVISION IS PROGRESSIVE BUT MAY NOT BE SUSTAINABLE. EXPANDING LIVELIHOOD OPPORTUNITIES IS CRUCIAL.

Figure 8: The price per 1kg of foods found in refugee settlements (WFP, 2016).



Consequently, only 12 percent of households in settlements report food crop production and sales as their main livelihood (36 percent in host communities). Comparable percentages of households reported livestock production, gifts or begging, and small business as their main livelihoods. Sales of food assistance was reported by 30 percent of households as their main livelihood.

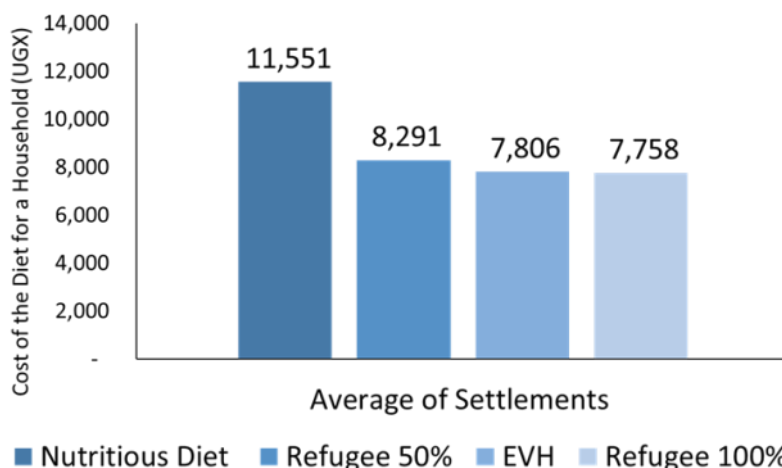
There may be quick efficiency wins by linking smallholder refugee households with existing post-harvest loss reduction schemes and local smallholder cooperatives. Connecting the cooperatives with post-harvest loss technology will ensure durability and quality of stored items. For WFP as a large procurer of grains, there is also an opportunity to channel the demand they are creating to decentralised units to make even a small agricultural livelihood more viable.

5.

LESS THAN 60 PERCENT OF STUDENTS AGED 9-17 YEARS ARE ENROLLED IN FORMAL EDUCATION. GIVEN THE YOUTH OF THE REFUGEE POPULATION, ALTERNATIVE EDUCATION PLATFORMS ARE AN ESSENTIAL ENTRY POINT TO ENGAGE THEM WITH NUTRITION AWARENESS AND LIVELIHOOD SKILLS TRAINING.

Sixty two percent of refugees are under the age of 18. Uganda's education policy entitles all school-aged children to free education until 18 years of age, including refugee children. Many schools struggle with the increased strain on education infrastructure as a result of the influx of refugees, but it is essential to provide this young generation with skills beyond the most basic labour skills. Overall it is estimated that 56 percent of children in settlements aged 9-17 years are enrolled in formal education, with 7 percent not in school and 36 percent in Accelerated Learning Programmes (ALP, 9-17 years). Needed skills range from technical labour to tasks around the households.

Figure 9: The cost of a nutritious diet per day, with and without the in-kind food provision, for a refugee household of five people, averaged across the settlements that receive the food modality.



⁶ Discussed further in finding 7.

⁷ At the time the FNG analysis was undertaken six settlements received food only, one settlement received cash only and six settlements received a mix of cash and food.

⁸ Defined as Extremely Vulnerable, New Arrival and Old Arrival, as discussed further in finding 9.

Attendance of ALP seems consistent and would therefore provide an easy first platform to start training and education on nutrition, technical subjects, and vocational skills for out-of-school children. There are data gaps around the dynamics, timing and reasons for drop-outs and potentially irregular attendance for both ALP and regular education. There are multiple additional livelihood solutions that refugees and host district members could pursue, such as tailoring, hairdressing, soap making and poultry and livestock rearing. These have been identified as needed by stakeholders. For these opportunities to become viable, investment in skill-based or technical training is needed. These activities could also be linked to more efficient and diversified food assistance options.

6.

GENERAL FOOD ASSISTANCE (GFA) IN THE FORM OF FOOD OR CASH HAS THE POTENTIAL TO PROVIDE SOME ESSENTIAL MICRONUTRIENTS FOR REFUGEES. TO IMPACT ON NUTRITION OUTCOMES, THE FOOD RATION SHOULD MEET NUTRIENT NEEDS BEYOND MACRONUTRIENTS, AND THE CASH TRANSFER MUST BE LARGE ENOUGH FOR HOUSEHOLDS TO PURCHASE NUTRITIOUS FOODS.

Assistance to households is usually received as in-kind food assistance or a mixed modality of cash and food⁶, with only a few households receiving cash alone⁷. Households in the cash settlements receive between 17,000 and 45,000 Ugandan Shillings (UGX) per person per month depending on their refugee status⁸. Households in food settlements receive maize grain or flour, beans, fortified oil, SuperCereal and iodised salt.

A detailed analysis of the extent to which individual household member's needs are met shows that the in-kind ration provides all energy requirements for the household. However, it is low in essential micronutrients and only provides 45 percent, 26 percent and 38 percent of vitamin

B12, calcium and iron requirements respectively. Figure 9 shows that the ration only covers 32 percent of the cost of a nutritious diet for a household and that between 7,758 – 8,291 UGX per day would be required for a household to purchase their remaining micronutrient needs. Based upon the CotD analysis, the types of nutritious food they would need to purchase are eggs, green leafy vegetables, milk, groundnuts, avocados and dried fish.

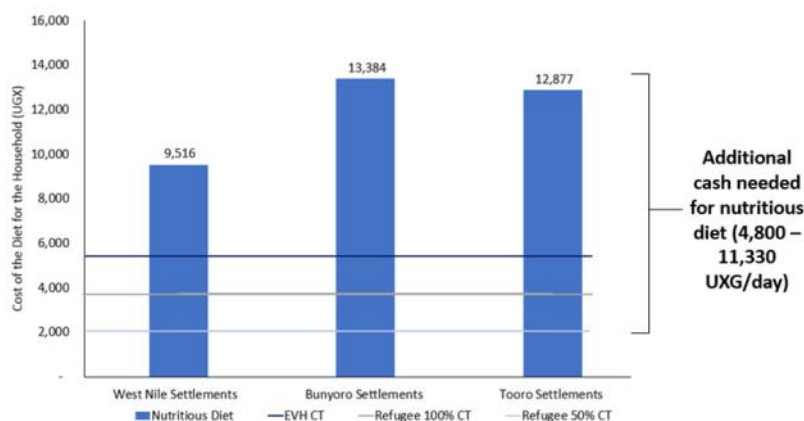
For the cash only modality, Figure 10 shows that the Extremely Vulnerable Household (EVH) transfer value has the greatest potential to enable households to purchase a nutritious diet, assuming that 76 percent⁹ of the cash value would be optimally spent on nutritious foods. Depending on the location of the settlement and the vulnerability status of the household, an additional 4,800 – 11,330 UGX day per household would be required to be able to purchase all of their nutrient needs.

If a cash only modality is to have an impact on nutrition outcomes it is important that nutritious foods are available in markets, and that the cash value is large enough to cover the cost of these foods. The provision of cash also needs to be carefully combined with Social and Behaviour Change Communication (SBCC) interventions that promote healthy purchasing choices. In a cash utilisation analysis that was done as part of Post Distribution Monitoring (PDM), it appeared that while cash only households consumed pulses and fruit more frequently, the frequency of their sugar consumption also doubled. Programming should therefore take into consideration that households may also make less healthy choices when given just cash, and foresee unintended consequences such as increased purchase of processed foods and drinks that are high in fat and/or sugar.

7.

REFUGEES ARE SELLING UP TO A THIRD OF THEIR FOOD ASSISTANCE. THERE IS A NEED TO RETHINK THE FOOD ASSISTANCE APPROACH TO ENSURE ACCESS TO A

Figure 10: The cost of a nutritious diet per day for the three settlement areas that implement the cash modality. The three lines represent the cash value of the three transfer categories provided based upon refugee status.



⁹ As indicated by Post Distribution Monitoring (PDM) July 2017.

¹⁰ Selling a third of the household's food ration, i.e. 4 out of 12kgs, is valued at 2,500 UGX per kg and earns households an estimated 10,000 UGX per month

DIVERSE DIET. A MIXED MODALITY OF FOOD AND CASH WOULD PROVIDE HOUSEHOLDS WITH THE GREATEST FLEXIBILITY IN MAKING NUTRITIOUS FOOD CHOICES.

Households reportedly sell up to one third of their in-kind food assistance rations (normally the maize grains) at the market as a major source of income¹⁰. This money is then used to mill grains and to buy alternative food and non-food items. In addition to indicating an inefficient use of resources, there is also the worry that this undermines local production and farmer's connections to markets. Because at least some demand for grains is filled by grains that are externally brought into the market through GFA, actual demand may not be sufficiently connected to local supply. Households that sell parts of their rations may not be in a good enough bargaining position to reap competitive prices for their grains and are potentially underselling their products. This may also be the result of a reported decrease in quality over time since the rations were distributed, or inadequate home storage.

Figure 11 shows that in addition to changing the sourcing of staple supply, a mixed modality approach with both an in-kind and cash element can be used to channel existing purchasing dynamics (i.e. selling staples to buy other foods) toward nutritious foods. Giving a portion of cash directly, for meeting any food or non-food needs, and giving restricted commodity-specific vouchers for nutritious foods, can be a first step in creating demand for nutritious foods. The advantage of a mixed modality model where part of the assistance is in-kind, is that it can protect recipients from market volatility for staple supply (i.e. sharp increases in crop prices), while at the same time giving them choices for consumption of other items.

Six of the refugee camps are currently receiving a mixed modality transfer which includes the standard food ration but with half the quantity of maize grain or flour. The other half of the staple is given as a cash equivalent with a value of between 3,500 – 14,500 UGX per person per month, depending on the household's refugee status.

Figure 11. Mixed modality model with WFP supporting locally procured staples for in-kind provision and cash/voucher schemes to create demand for nutritious foods.

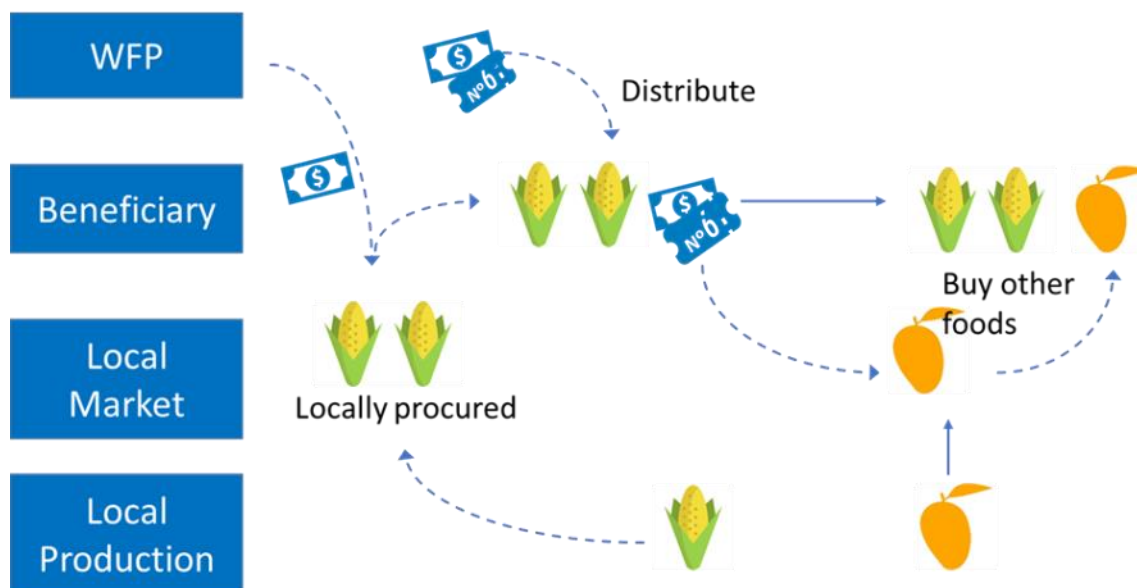


Figure 12 shows the potential impact of the refugee 100 percent mixed modality. It shows that households would need approximately 5,560 UGX per day more cash to be able to purchase additional more nutrient-dense foods (eggs, green leafy vegetables, milk, groundnuts, avocados and dried fish) to meet their nutrient needs.

8.

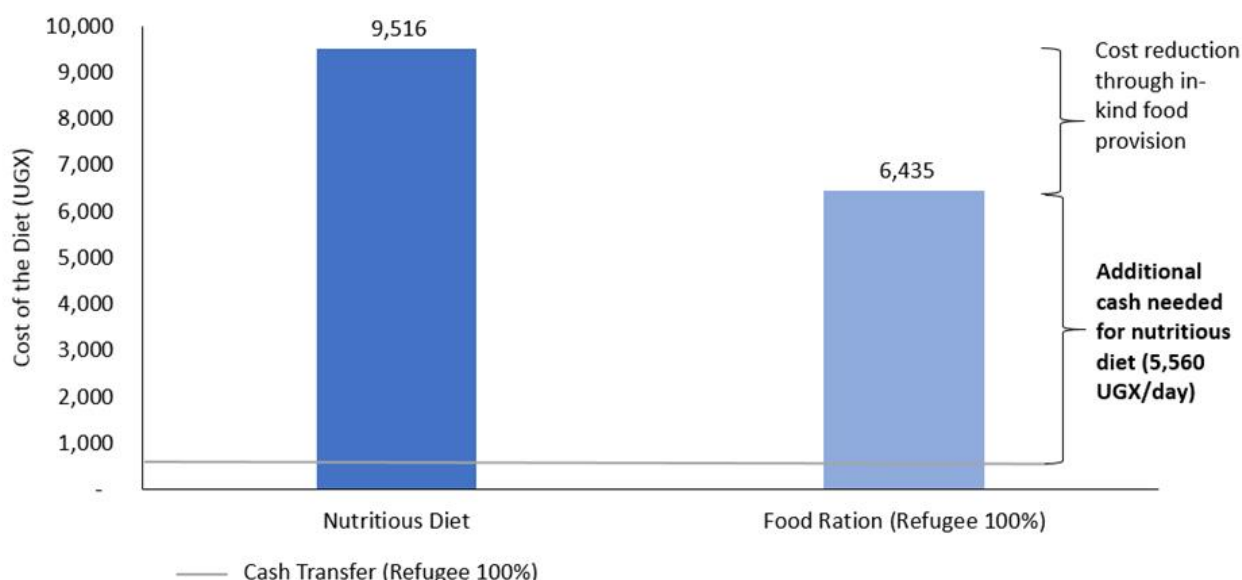
TARGETING OF REFUGEES IS CURRENTLY DONE BY STATUS AND DURATION OF STAY. THIS CATEGORISATION DOES NOT NECESSARILY REFLECT VULNERABILITIES, POTENTIALLY RESULTING IN NOT REACHING THOSE MOST IN NEED.

Refugees are categorised as Extremely Vulnerable Households (EVH), New Arrivals and Old Arrivals. EVHs are granted slightly more cash, whereas Old Arrivals are given

only 50 percent of the food or cash ration of New Arrivals. The assumption behind this is that a small proportion of households would be chronically vulnerable and would need more assistance, while most households would be at their most vulnerable upon arrival. Households that have spent more time in country would have become more integrated, more settled into productive livelihoods and less vulnerable.

Looking at vulnerability indicators over time does not support this assumption. For indicators such as severe food insecurity, not having access to land and being in the bottom asset index quintile, little to no change has happened over a period of 10 years (2006 – 2016). There is no indication of becoming less vulnerable with more years spent in country. There are only minor differences regarding vulnerabilities and consumption between host communities and refugees in settlements.

Figure 12: The impact that a mixed modality ration could have on reducing the daily cost of a nutritious diet in the refugee settlements areas. The horizontal line represents the cash transfer value given as part of the mixed modality.



This suggests that there are patterns of insecurity and vulnerability that are similar in these two groups, making the status of being a refugee less relevant than other factors.

Given similar patterns of vulnerability, malnutrition (see message 1), and food insecurity between host and refugee population, as well as no visible difference in vulnerability based on years spent in country, integrating the refugee population into existing social safety nets such as NUSAF II may be a more efficient and sustainable solution.

9.

CONTEXT-SPECIFIC INTEGRATED PACKAGES OF TARGETED AND HOUSEHOLD INTERVENTIONS HAVE THE GREATEST POTENTIAL TO IMPROVE AFFORDABILITY OF A NUTRITIOUS DIET.

A range of interventions were modelled using the CotD for individual target groups and the household, as guided by the secondary data analysis and stakeholder consultation, shown in Table 1.

- For children aged 6-23 months, WFP's MCHN programme has the greatest impact in reducing the cost of meeting nutrient needs.
- An MMT and an iron and folic acid tablet had a similar impact in reducing the cost of meeting nutrient needs for a pregnant and lactating woman, because iron needs were the most costly to meet from nutritious foods. The MMT also meets the needs of other micronutrients which are less costly to meet from foods, but may not necessarily be met by the foods that people buy.
- For the household, a nutrition-sensitive kitchen garden, Action Against Hunger's fresh food vouchers and making biofortified high iron-beans available in the market had a similar impact in reducing the cost of meeting nutrient needs.

Table 1: The targeted and household interventions modelled using the CotD software to improve nutrient intake.

Intervention	Target Group	Transfer Modality	Entry Point(s)
Vitamin and mineral powder	Child 6-23 months	In-kind/voucher	Health Social Protection
Small-Quantity Lipid Based Nutrient Supplement ¹¹			
Maternal and Child Health and Nutrition Programme (MCHN)(SuperCereal +) ¹²			
Iron and folic acid supplement	Adolescent girls, pregnant and lactating women	In-kind/voucher	Health Social Protection
Multiple Micronutrient Tablet (MMT)			
MCHN Programme (SuperCereal ¹³ , oil and sugar)			
Nutrition-sensitive agriculture ¹⁴	Household	Own production	Agriculture markets
Smallholder poultry rearing ¹⁵			
Smallholder fish farming ¹⁶			
Fortified staples (maize and wheat flour)		Market	Markets
Biofortified foods (high-iron beans and orange flesh sweet potatoes)		In-kind/voucher	Health Agriculture Markets Social Protection
Fresh food vouchers ¹⁷			

¹¹ 20g a day was modelled.

¹² 60g SuperCereal+ a day was modelled.

¹³ 120g SuperCereal a day was modelled.

¹⁴ Assumed households had access to 0.2 hectares of land and were able to grow a total of 40kg of vegetables per month. These vegetables included dodo leaves (amaranth), maize, matooke, orange flesh sweet potato and biofortified high-iron beans.

¹⁵ Assumed households would consume 21 eggs a week.

¹⁶ Assumed households would consume 4.3 kg of fish a month.

¹⁷ Based on Action Against Hunger's programme implemented in refugee settlements in the West Nile, which aimed to improve dietary diversity among the beneficiary clients undergoing treatment for acute malnutrition (both moderate and severe). Each beneficiary was kept on the program for 2 to 3 months, receiving a voucher of 40 000 UGX per month split into four food categories (meat, eggs and milk, fruits and vegetables).

10.

A PACKAGE OF INTERVENTIONS IMPLEMENTED ACROSS MULTIPLE SECTOR ENTRY POINTS COULD GREATLY IMPROVE HOUSEHOLD'S CAPACITY TO ACCESS A NUTRITIOUS DIET.

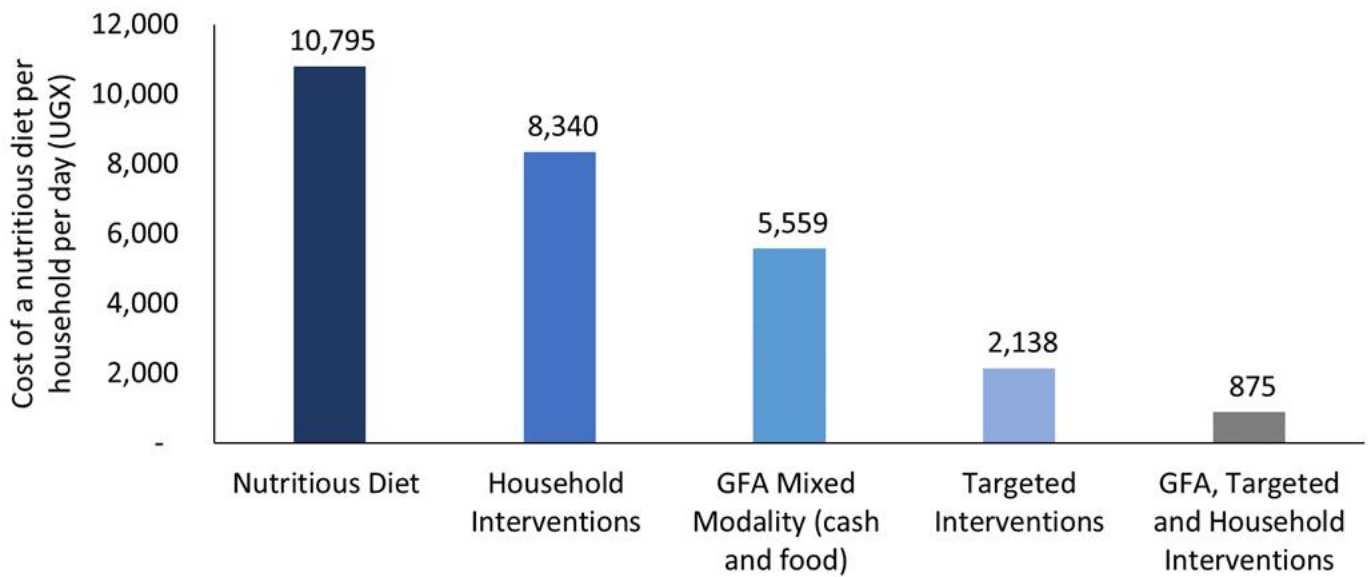
The most effective interventions for reducing the cost of meeting nutrient intakes for individual target groups were combined into a package, with the most effective household intervention and the refugee 100 percent mixed modality GFA, as shown in Table 2.

Figure 13 summarises the impact of these packages on reducing the cost of a nutritious diet for the household. These results demonstrate the possible benefits that could be gained by increasing refugee's nutrient access via a package of interventions across multiple entry points and sectors. The underlying assumption for such an intervention is that adequate demand creation strategies are in place to ensure that any cash transfers or vouchers provided are used to acquire more nutritious foods.

Table 2: The most effective interventions in reducing the cost of a nutrition diet, as indicated by the CotD analysis.

Target Group	Intervention
Child 6-23 months	Small-Quantity Lipid Based Nutrition Supplement
Adolescent Girl Pregnant and Lactating Woman	MMT
Household	Nutrition Sensitive Agriculture
	100% Mixed Modality GFA

Figure 13: The potential impact that a package of a range of targeted and household level interventions and a cash transfer could have on reducing the cost of a nutritious diet among refugee households (WFP, 2018).





FNG in Refugee Settlements: Recommendations

During the recommendations workshop, the main findings of the FNG analysis were shared and discussed with the wider stakeholder group. Participants then formed five work groups, each comprised of different complementary entry points for policy and programmatic strategies: 1) health and nutrition; 2) agriculture and markets; 3) social protection and general assistance; 4) education and; 5) other livelihoods. Each group was asked to brainstorm interventions which, based on the findings, could contribute to improving the dietary intake of target groups and the overall refugee and host populations. They were then asked to prioritise one intervention for which they identified target groups and objectives and set short- (0-6 months), medium- (6-12 months) and long-term (>12 months) activities.

HEALTH AND NUTRITION

During the brainstorming session of the stakeholder dissemination meeting, the group that looked in depth at health and nutrition discussed the need to implement and scale-up the ten high impact interventions for nutrition (as detailed in the Lancet Maternal and Child Health series) in the refugee settlements and host communities. Beyond these interventions they also discussed enhancing the micronutrient intake of vulnerable groups by providing vitamin and mineral powders to children aged 6-23 months and iron and folic acid tablets to adolescent girls and pregnant and lactating women.

The intervention that was prioritised was the promotion of optimal infant and young child feeding practices, with the aim of improving infant and young child nutrition and reducing the rates of stunting, wasting and anaemia. The specific behaviours that were identified as requiring tailored messaging were the duration of exclusive breastfeeding, timely introduction of and appropriate complementary feeding, and hygiene and sanitation practices. The group proposed that SBCC would be targeted at mothers, fathers, community health workers and frontline health workers with engagement from the health, nutrition and water, sanitation and hygiene (WASH) sectors.

In the short term, as well as the proposed SBCC activities, it was recommended that micronutrient supplements and specialised nutritious foods were also provided to children aged 6-23 months as a preventative measure for growth failure. Longer term activities included capacity-building of partners as well as monitoring and evaluating the impact of the messages. The group acknowledged that additional food price and expenditure modelling was needed to better understand the availability and cost of nutritious foods in the refugee settlements and host areas, and food preferences and taboos. Collecting MAD for infants in the refugee settlements on a continuous basis was deemed essential to inform SBCC messages.

AGRICULTURE AND MARKETS

Nutrition-sensitive agriculture, with the aim of improving the availability and access of nutritious foods for the refugee and host communities, was the intervention prioritised by the group that considered agriculture and markets. Activities considered focused on the scale-up from backyard garden (short-term) to farming field schools (medium-term) and ultimately sustainable agriculture (long-term). All these actions were to be embedded in SBCC to ensure appropriate practices pertaining to crop choices and appropriate food preparation. In the shorter term, the recommendation was to focus on agricultural inputs, demonstrations on the appropriate use of these, and improved coordination through agricultural extension workers. Medium-term interventions highlighted the need for effective post-harvest loss management and including small animal rearing as part of more diversified smallholder agriculture. The need for access to market structures for increased sales, as well as credit for investment and bridging lean seasons, were highlighted. Access to credit and investments were also prioritised within long-term activities, as was the importance of creating linkages to government programmes.

It was evident that the challenges for agriculture and the inclusion of refugees into the sector are numerous. Major constraints are access to land and the reduction of land access due to increased influx of refugees. These challenges may be different in refugee and host communities. Limited resources to support improved agricultural practices and the existence of only limited policies targeting agricultural extension work are problematic. Water management was also mentioned as a constraint to improved production.

Given these barriers, there was agreement that agriculture is best engaged cross-sectorally between Ministries such as Agriculture, Water and Environment; UN agencies such as FAO, UNHCR, International Fund for Agricultural Development, WFP; the Office of the Prime Minister and; NGOs active in agriculture and nutrition.

SOCIAL PROTECTION AND GENERAL ASSISTANCE

This stakeholder dissemination group highlighted the need for more nutrition-sensitive social protection schemes for refugee and host communities. Two forms of cash transfer were recommended, the first for households aimed at addressing the first 1,000 days (from conception to the second birthday) and the second for households conditional on the school attendance of adolescent girls.

A mixed general food assistance model, where refugee households receive their current in-kind food ration with an additional cash top-up for nutritious foods and other non-food needs, was also prioritised. It was recommended that part of the cash component should be a voucher for certain



nutritious commodities, such as vegetables and animal products, to ensure an impact on nutrition outcomes. Although primarily aimed at refugee households, the host community could also benefit from this adaptation of the current GFA model as the voucher could be reimbursed in their market stalls thus increasing their income.

Before such an intervention can be implemented, improved assessments are necessary to determine the availability of nutritious commodities in markets in and around the refugee settlement areas, and whether the supply of these foods could respond to an increase in demand. This data would also help to determine the cash value of such a voucher. Food preferences, taboos and purchasing habits would also need to be researched. SBCC messages would need to be developed to encourage the appropriate use of the vouchers/unrestricted cash and to reinforce good WASH practices. This data would be collected in the short term whilst the current GFA programme continues to be implemented.

In the longer term, the group recommended setting up a Village Savings and Loans Association or integrating refugees into an existing scheme within the host community. The associations would encourage refugees to invest some of the unrestricted cash into the scheme to support education and/or livelihood activities. The following sectors would need to be engaged: agriculture, health, nutrition and WASH.

EDUCATION

The main focus of the dissemination stakeholder group that discussed education was two-fold: incentives to increase enrolment and school attendance, and to provide vocational training for out-of-school adolescents. The objectives for the first are to increase school enrolment and attendance, and increase nutritional knowledge and practice. The second objective is to enable income generation, and improve nutrition knowledge and food preparation and cooking skills and practices.

Short term activities considered to enable incentives included provision of nutritious foods at school, inclusion of nutrition education in the curriculum and iron supplementation for adolescent girls, together with SBCC on the importance of education and good nutrition. These activities were predominantly to bridge the nutrition gap while medium- and long-term sustainable activities were initiated. Medium-term activities focus on creating knowledge around nutrition and good eating habits and centred on demonstration gardens at schools to show the possible diversity of produce grown. For long-term activities related to school meals, the group focused on schools being able to locally source the food provided without creating dependency on private sector products or in-kind food distribution. Examples discussed included sourcing through school gardens, local production, and post-harvest loss reduction cooperatives.

The main challenges and outstanding gaps to be addressed were the overload on the school system, the lack of

adequate iron supplementation stocks, and resistance of some parents to be involved in food gardening activities. These highlight the need for multi-sectoral engagement to, for example, ensure that incentives to attend school in one region do not create a pull-factor for students from other regions. Sectors to be engaged include education, health, community development, gender, agriculture, finance and water.

Short-term activities that focused on creating platforms for vocational training included sensitisation of the use of vocational training and expansion of the scope around Accelerated Learning Programmes. Longer-term activities were envisaged as involving a more institutionalised approach with vocational training institutions being able to provide technical vocation and educational training. Challenges that were foreseen were mainly related to the financing of alternative education platforms and the coordination necessary to ensure access for everyone targeted to receive this training. The main stakeholders listed to engage in this were UNICEF, UNHCR, Ministry of Education, Ministry of Labour and the Ministry of Development.

OTHER LIVELIHOODS

During the development of recommendations, the group discussing livelihoods that referred to those outside agriculture and agriculture-based markets, prioritised interventions to strengthen human capital and build capacity amongst the youth in general and adolescent girls specifically. The objectives were: to increase skills development, particularly for entrepreneurship; establish work opportunities across the food value chain (processing, delivery, and cold-chain) and; service-related activities. The vision is to increase income to bridge the existing nutrition gap through improving access to, and affordability of, nutritious foods. Focusing on investing in the youth and adolescent girls will build capacities with long-term benefits for families.

A short-term activity designed to initiate opportunities was a rapid assessment of capacity gaps and skills necessary in specific areas, to account for the variety of needs across the region. In addition, an in-depth 'knowledge, attitude and practices' survey is required to understand behavioural patterns associated with livelihoods, and how to approach the identification and engagement of the desired audience to be able to strategically mobilise individuals. Based on the outcome of the assessments, training can be developed to provide the necessary practical skills while ensuring that nutrition, market and financial literacy are included.

For medium-term activities, the group pointed out that skills building initiatives need to be followed with work placements to enable those trained to put the skills acquired into practice. It was suggested that one way to support placements was to provide advance loans so that businesses would be willing to offer placements without immediately having to carry the associated costs, and the youth trained would be able to earn while practicing their new skills. These would need to be continuously accompanied by training which can expand beyond the actual labour to focus on nutrition and healthy eating behaviours.

The main aim of long-term activities was to provide the youth with the opportunity and ability to start their own businesses. This would require a mentoring programme, an information network to create awareness of labour opportunities and labour demand, and access to credit for those wishing to start their own businesses.

The biggest challenges foreseen were fluctuating markets that make it hard to earn a steady income, and consistently spending money on nutritious foods. Access to credit was mentioned as another challenge and it was pointed out that often the poorest do not have access to sufficient credit, creating a poverty trap. Gender issues were also discussed and SBCC was considered necessary for the sensitisation of men to the importance of nutrition, as money is currently more often controlled and spent by men. It is therefore necessary to influence the amount spent on nutritious food with any increased income. Expanding livelihoods involves engaging many sectors including agriculture, commerce, WASH, education and social protection.



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LIST OF ACRONYMS

CotD	Cost of the Diet
EVH	Extremely Vulnerable Household
FAO	Food and Agriculture Organization
FNG	Fill the Nutrient Gap
FSNA	Food Security and Nutrition Assessment
GFA	General Food Assistance
LP	Linear Programming
MAD	Minimum Acceptable Diet
MCHN	Maternal and Child Health and Nutrition
MMT	Multiple Micronutrient Tablet
PDM	Post-Distribution Monitoring
SBCC	Social and Behaviour Change Communication
UDHS	Uganda Demographic and Health Survey
UGX	Ugandan Shilling
UN	United Nations
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
WASH	Water Hygiene and Sanitation
WHO	World Health Organization
WFP	World Food Programme

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