Food Consumption Score & Food Consumption Score Nutritional Analysis

Guidance Note

April 2024

Contents

1. About this guidance

This guidance was created to help understand the Food Consumption Score (FCS) indicator, as well as the Food Consumption Score Nutrition Quality Analysis (FCS-N) indicator, from the design of the questionnaire to the training of enumerators, analysis and reporting on these indicators. Since 2008 for FCS[1], and 2015 for the FCS-N[2], WFP has not yet updated the guidance, despite their prevalence in vulnerability analysis for the World Food Programme's (WFP) operations. This guidance document is meant to clarify and replace the pre-existing guidance, on both FCS & FCS-N.

In terms of what has been clarified in this updated guidance:

- It has been **adapted urban settings**: the new guidance captures the eating habits of households in urban settings, where consumption outside the household is more frequent than in rural areas.
- It has been clarified that only food consumed by "**most members in a household**," meaning more than 50% of the household, should be counted.
- It indicates **how to classify food items within the food groups**: it has been clarified which food items belong to which food groups (See Annex I), and how to quantify food items as condiments, when consumed in small quantities (See Annex II).
- It simplifies the final step on the **sources of food**: the standardized module now only asks for the primary source of each food group to be reported, rather than the first two (primary and secondary), as in the initial 2008 guidance.
- **Food source** definitions have been clarified. For example, assistance is explicitly defined as in-kind assistance or value vouchers only, whereas cash assistance is captured in cash purchases.
- It **combines the guidance** on the standard FCS and the FCS-N.

Clarifications	Limitations of the old guidance
Only food that is consumed by "**most members in a household**," meaning more than 50% of the household should be counted.	Vague language led to some misinterpretation as if food must be consumed by all household members in order to be counted.
Food consumed **outside the home** (by the majority 50%+ of the household) should also be considered.	Only considered food prepared and consumed at home.
Further clarification of which **food items consumed should be classified** within each food group and when they should be considered **condiments (small quantities).**	Only included standard food items, and a couple examples of small quantities.
The standardized module now only asks for the **primary source of each food group** to be reported.	Asked for the first two (primary and secondary) sources for each food consumed.

[1] Food Consumption Analysis - Technical Guidance Sheet
[2] Food Consumption Score Nutritional Quality Analysis (FCS-N) Guidelines (wfp.org)

Food sources have been clarified. For example, assistance includes only in-kind assistance.	Vague language led to some misinterpretation of where to classify cash assistance; however, it is impossible to determine whether cash came from regular income sources vs. cash assistance.
Combines guidance on the FCS and FCS-N.	Guidance notes for FCS & FCS-N were separate before, despite being closely related.

Other useful resources about these indicators, including the standard modules, and syntax files can be found on the **VAM Resource Centre** page.

2. Introduction to the Food Consumption Score (FCS) and the Food Consumption Score Nutrition Quality Analysis (FCS-N)

Food consumption captured in the form of kilocalories is often considered the gold standard for measuring consumption and one of the standard indicators for food security, but the collection of such detailed food intake data is difficult and time-consuming, especially at the household level. Thus, the WFP tailored the food consumption measurement to its resources, field capacity and information needs with the creation of the Food Consumption Score. The FCS was created by WFP in the Southern Africa region in 1996. It is flexible enough for different needs and contexts, while standard enough to have applicable analysis techniques and interpretable results. It can also be implemented in the field in a reasonable data collection and analysis timeframe.

The FCS is considered a proxy of household food intake or caloric consumption. It is a composite score based on households' dietary diversity, food consumption frequency, and the relative nutritional value of the different food groups. It is based on self-reported information about the household's consumption of eight standard food groups in the past week. For reporting, households are classified based on standard thresholds into one of three food consumption groups (FCG): poor, borderline, or acceptable.

Further, in addition to the FCS, WFP developed the Food Consumption Score Nutritional Quality Analysis (FCS-N) based on the FCS in an effort to make the link between household consumption and nutritional outcomes. It uses the information gathered through FCS, which provided a wealth of unexploited data on household consumption of nutrient-rich groups, which are essential to nutritional health and well-being, namely: protein, hem iron, and vitamin A.

A validation study was conducted to validate the FCS against caloric intake in three countries[3]. Refer to the original FCS Technical Guidance Sheet from 2008 for detailed information on the creation of this indicator and validation processes.

[3] IFPRI Validation of WFP's FCS and alternative indicators of household food security
https://ebrary.ifpri.org/utils/getfile/collection/p15738coll2/id/32010/filename/32011.pdf

3. What are the FCS and FCS-N used for?

The Food Consumption Score (FCS) is a WFP corporate indicator collected in all assessments and monitoring activities to support the identification of the most food insecure households. The FCS can be used in a range of ways for determining the food security situation of a household and a population, as part of holistic food security assessments comprising a number of indicators, as well as in programme activity monitoring, and is used to inform evidence-based targeting approaches. The prevalence of households with food consumption gaps (poor and borderline food consumption), often referred to as inadequate food consumption, provides essential information on households' current diets and is helpful in deciding the most appropriate type and scale of food security intervention as well as the appropriate target group for food assistance. In addition to the frequency of consumption of the main food groups, questions are also asked about the primary source of foods consumed, which provides further valuable insight into the households' food security situation and level of self-reliance.

The FCS is a good proxy for understanding the current food security status and is correlated with other food security proxy indicators, including FCS-N, HDDS and rCSI. A high FCS increases the probability that a household's food intake is adequate at that given point in time, whereas a low FCS indicates that the household's food consumption is not sufficient and thus may need WFP assistance. When monitoring beneficiaries of WFP programme activities, it is expected that the proportion of households with poor and borderline consumption decreases and the proportion of households with acceptable consumption increases following the reception of food assistance.

The FCS indicator also plays a part in classifying households according to their level of food security, through the Consolidated Approach for Reporting on food Insecurity (CARI). The CARI console summarises a set of food security indicators computed at the household level, including the FCS. CARI has two domains, the *'current status'* and the *'coping capacity'* domain. The FCS is one of the four indicators used to calculate the CARI composite indicator and is one of the two in the *'current status'* domain, which measures the adequacy of households' food consumption at the time of survey. FCS is also one of the food security outcome indicators in the Integrated Food Security Phase Classification (IPC) acute food insecurity reference table (see here). Together with other key food security outcome indicators and contributing evidence, FCS is used in IPC analyses for classifying populations into the five phases of acute food insecurity (none/minimal, stress, crisis, emergency, or catastrophe/famine).

The FCS-N was designed to improve the understanding of households' intake of key nutrient-rich foods, focusing on protein, vitamin A and iron (see box to the right). Whether to use the FCS module or the FCS-N module is typically guided by a Country Office's strategic decisions related to nutrition programmes. If nutrition interventions are included in the Country Strategic Plan (CSP), the expanded module is recommended for monitoring purposes and for regular assessment purposes. For nutrition-sensitive programmes, it is strongly recommended to measure the FCS-N in addition to the FCS as the FCS-N can feed into decisions on nutrition-sensitive programming.

4. Important definitions

- **Dietary diversity** is defined as the number of different food groups eaten over a reference

period, not regarding the frequency of consumption.

- **Food consumption frequency**, in this context, is defined as the frequency (in terms of days of consumption over a reference period of 7 days for this indicator) that a specific food group was eaten at the household level.
- **Nutritional value** in this context is a weighting used to define a food group's value in terms of caloric density, macro and micronutrient content, and actual quantities typically consumed. This weighting attempts to give greater weight to foods such as meat and fish, which are considered to have greater nutritional value, and lesser importance to foods like sugar.
- **Food group** is defined as a grouping of food items that have similar caloric and nutrient content, e.g., cereals.
- **Food items** fall under food groups and cannot be further split into separate foods. Generic terms such as 'rice' or 'tomatoes' are generally considered to be food items for the purpose of these indicators.
- **Condiments**, in this context, refer to foods that are generally eaten in very small quantities, often just for flavour. Examples include spices, 'pinch' of fish powder, a 'splash' of milk in tea or coffee, etc.
- **Subgroup,** any disaggregated food group, beyond the eight aggregate food groups plus condiments, such as fish as a subgroup of 'meat, fish and eggs'

5. The FCS and FCS-N modules

There are two modules for the FCS – the first is the standard FCS, which consists of 8 food groups, plus condiments; the other is the Food Consumption Score for Nutrition Quality Analysis (FCS-N), which has the 8 main food groups plus condiments, as well as 7 subgroups. This guidance is combined for both the FCS and the FCS-N.

For both the FCS and the FCS-N, the primary question is "In the past 7 days, how many days did most members of your household (50%+) eat the following food items inside or outside the home?", and as a follow-up question, the primary source of the food item.

The standard modules include food items which must always be adjusted to the local context. While the standard eight food groups plus condiments cannot be altered, the examples of food items under the standard food groups must always be adapted to the context, in order to ensure that the examples are relevant and easily understood (in local languages). Typically, the items listed within the cereals group need particular attention – e.g., pasta and bread vs. fufu or couscous.

Module 1: Food Consumption Score

This module collects the information needed to compute the FCS and main sources of food.

	FCS: How many days over the last 7 days, did most members of your household (50%+) eat the following food items, inside or outside their home, and what was their source? ***Note for enumerator:*** *Determine whether the consumption of food items (e.g., fish, milk) was only in small quantities and should be recorded as a condiment.*	Number of days eaten in past **7 days.**	Variable names	How was this food acquired? **Write the main source of food for the past 7 days.** *If not eaten, do not specify the main source.*
1.	**Cereals, grains, roots, and tubers:** Rice, pasta, bread, sorghum, millet, maize, potato, yam, cassava, white sweet potato, taro, plantain	|___|	FCSStap	|___|
2.	**Pulses/legumes, nuts, and seeds:** beans, cowpeas, lentils, soy, pigeon pea, peanuts, and/or other nuts	|___|	FCSPulse	|___|
3.	**Dairy**: milk, yogurt, cheese, other dairy products (Exclude margarine/butter or small amounts of milk for tea/coffee)	|___|	FCSDairy	|___|
4.	**Meat, fish and eggs:** goat, beef, chicken, pork, fish, including canned tuna, escargot, and/or other seafood, escargot, insects, eggs (Exclude meat and fish consumed in small quantities)	|___|	FCSPr	|___|
5.	**Vegetables and leaves:** spinach, onion, tomatoes, carrots, peppers, green beans, lettuce, etc.	|___|	FCSVeg	|___|
6.	**Fruits:** banana, apple, lemon, mango, papaya, apricot, peach, etc. (Exclude packaged fruit juice)	|___|	FCSFruit	|___|
7.	**Oils, fats, and butter:** vegetable oil, palm oil, ghee, butter, margarine, other fats or oils	|___|	FCSFat	|___|
8.	**Sugar and sweets:** sugar, honey, jam, candy, chocolate, biscuits/cookies, pastries, cakes, ice cream, and other sweets, including sugary drinks	|___|	FCSSugar	|___|
9.	**Condiments and spices:** tea, coffee, cocoa powder, salt, garlic, spices, yeast, tomato paste; small quantities of other foods, especially meat or fish and small amounts of milk in tea or coffee.	|___|	FCSCond	|___|

Food acquisition codes (Source of food, SRf)

100 = Own production (crops, animal husbandry)
200 = Fishing/hunting
300 = Gathering
400 = Loan/borrow
500 = Purchase (with cash)
600 = Purchase (on credit)
700 = Begging or scavenging for food
800 = Exchange labour or items for food (barter)
900 = Gift (food) from family relatives or friends
1000 = Food assistance (in-kind) from WFP, civil society, NGOs, government, etc.

Module 2: Food Consumption Score for Nutrition Quality Analysis

If information on more than eight food groups is collected, such as in the FCS-N module where data on 7 additional subgroups are collected, then the main 8 food groups must be asked as an aggregate before disaggregation. Even if the disaggregated subgroups are included, they should not be aggregated to compute the FCS under any circumstance. The disaggregated groups should never be aggregated, the highest value should not be taken, and the average should also not be taken. This means that before asking about orange vegetables (considered rich in vitamin A), for example, the main food group of 'vegetables and leaves' should be asked first; then, if consumed, the enumerator would ask the respondent about household consumption of orange vegetables. This is done to reduce the risk of overestimating the food consumption score, which must be calculated based on the main eight food groups. Link to the syntax can be found **here**.

⚠ **Reminder!** It is important to stress that even if the disaggregated subgroups are included, then the main 8 food groups must be asked as an aggregate before disaggregation.

The FCS-N analyses the 7 subgroups in order to differentiate between the consumption of particular nutrient-rich foods.

- The **vegetables food group** includes a great diversity of food items in terms of their specific nutrient density: it includes dark green leafy vegetables and deep yellow/orange vegetables both rich in micronutrients, but also includes other less nutrient-rich vegetables such as onions, white cabbage, etc. Asking about the consumption of all vegetables does not distinguish whether the household consumed the micronutrient-rich ones or only ate less nutrient-rich vegetables like onions, which are commonly used across countries and cultures.
- In the **fruits food group**, it is important to distinguish between fruits rich in vitamin A – the deep yellow/orange ones - from the others.
- **Meat, fish and eggs**: It is also important to distinguish the consumption of different types of flesh meats, which are rich in protein and hem iron, and organ meats that are also rich in vitamin A.

Why these nutrients?

All macronutrients (carbohydrates, proteins, and lipids) and micronutrients (vitamins and minerals) are important to ensure a healthy life, and all nutrients should be represented in sufficient quantity for a balanced diet.

Macronutrients are good sources of energy. A lack in energy quickly leads to acute undernutrition. An insufficient intake of protein (essential for growth) is a risk for wasting and stunting. It also has an impact on micronutrient intake as foods rich in protein are also rich sources of vitamins and minerals.

Deficiencies in **micronutrients** over a long period of time lead to chronic undernutrition. Iron deficiency leads to anaemia while vitamin A deficiency can lead to blindness and interferes with the normal functioning of the immune system, growth and development, as well as reproduction.

This tool focuses on three key nutrients: **protein, vitamin A and iron (hem iron)** primarily for their nutritional value but also because foods rich in these nutrients can be easily grouped from food consumption data. Note that FCS-N focuses on hem iron, which is found meat and fish and is well absorbed (10-30%). Whereas, non-hem iron is found in cereals, fruit, vegetables and dairy and only 1-5% is absorbed.

Food Consumption Score Guidance

FCS: How many days over the last 7 days, did most members of your household (50%+) eat the following food items, inside or outside their home, and what was their source? ***Note for enumerator:*** *Determine whether the consumption of food items (e.g., fish, milk) was only in small quantities and should be recorded as a condiment.*		Number of days eaten in past **7 days.**	Variable names	How was this food acquired? **Write the main source of food for the past 7 days.** *If not eaten, do not specify the main source.*
1.	**Cereals, grains, roots, and tubers:** Rice, pasta, bread, sorghum, millet, maize, potato, yam, cassava, white sweet potato, taro, plantain	|___|	FCSStap	|___|
2.	**Pulses, legumes, nuts and seeds:** beans, cowpeas, peanuts, lentils, soy, pigeon pea and/or other nuts	|___|	FCSPulse	|___|
3.	**Dairy**: milk, yogurt, cheese, and other dairy products (Exclude margarine/butter or small amounts of milk for tea/coffee)	|___|	FCSDairy	|___|
4.	**Meat, fish and eggs:** goat, beef, chicken, pork, fish, including canned tuna, escargot, and/or other seafood, escargot, insects, eggs (Exclude meat and fish consumed in small quantities)	|___|	FCSPr	|___|
If 0, skip to question 5				
4.1	**Flesh meat:** beef, pork, lamb, goat, rabbit, chicken, duck, other birds	|___|	FCSNPrMeatF	|___|
4.2	**Organ meat:** liver, kidney, heart and/or other organ meats		FCSNPrMeatO	
4.3	**Fish/shellfish**: fish and other seafood, including canned tuna (fish in large quantities and not as a condiment)	|___|	FCSNPrFish	|___|
4.4	**Eggs**	|___|	FCSNPrEggs	|___|
5.	**Vegetables and leaves:** spinach, onion, tomatoes, carrots, peppers, green beans, lettuce, etc	|___|	FCSVeg	|___|
If 0, skip to question 6				
5.1	**Orange vegetables:** carrot, red pepper, pumpkin, orange sweet potatoes	|___|	FCSNVegOrg	|___|
5.2	**Green leafy vegetables:** spinach, broccoli, amaranth, cassava leaves, and/or other dark green leaves	|___|	FCSNVegGre	|___|
6.	**Fruits:** banana, apple, lemon, mango, papaya, apricot, peach, etc	|___|	FCSFruit	|___|
If 0, skip to question 7				
6.1	**Orange fruits:** mango, papaya, apricot, and peach (Exclude oranges which are not rich in vitamin A)	|___|	FCSNFruiOrg	|___|
7.	**Oils, fats, and butter:** vegetable oil, palm oil, butter, margarine, other fats or oils	|___|	FCSFat	|___|
8.	**Sugar and sweets:** sugar, honey, jam, candy, chocolate, biscuits/cookies, pastries, cakes, ice cream, and other sweets, including sugary drinks	|___|	FCSSugar	|___|
9.	**Condiments/spices:** tea, coffee/cocoa, salt, garlic, spices, yeast/baking powder, tomato paste, meat or fish as a condiment, condiments including the small amount of milk/tea coffee.	|___|	FCSCond	|___|

Food acquisition codes (Source of food, SRf)
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Sources of food

The food consumption module also aims to obtain information about how each food group was acquired by the household. The food source column of the food consumption module is used to record the main method by which the household obtained the majority of food items within each food group. The response options are standardized (Table 1). Sources of food are gathered in order to obtain a more comprehensive understanding of food availability and access for households.

While less emphasis tends to be placed on the component related to sources of food, it has great importance in explaining the food security situation of households and their level of vulnerability at a point in time. For example, a household which mainly relies on humanitarian food assistance, borrowing, and gifts, can be considered more vulnerable than a household that is able to obtain food through cash purchases. The same can be considered at an overall level: if cash purchases used to be the main source of food a country/region/area, but they are experiencing increasing levels of food insecurity, this will often be reflected in an increasing share of households relying on other less sustainable food sources.

Table 1: Description of food sources

Food source	Description
1. Own production (crops, animal husbandry)	Households mostly obtained this food from their own production. This includes all forms of agricultural crops, fruit trees, vegetable gardens, animal husbandry, aquaculture or apiculture. Depending on the scale and diversity of production and setting (urban/rural) this could indicate some level of self-reliance/ self-sufficiency or could indicate a lack of resilience if heavily dependent on own production for many food groups and lack the cash to purchase other foods.
2. Fishing/hunting	Households mostly obtained this food through fishing and/or hunting. Depending on the context/setting (coastal/urban/rural), this could indicate contextual habits/preferences and a level of self-reliance (a choice) or could indicate a level of despair, searching for protein sources (meat or fish) that is available in the wild (usually free or with minimal cost).
3. Gathering	Households mostly obtained this food through gathering (or foraging). This includes for instance gathering of wild berries, fruits, vegetables, and leaves for household consumption. Depending on the context/setting (urban/rural), this could indicate some level of self-reliance (a choice) or could indicate a level of despair, searching for food that is available in the wild (usually free).
4. Loan/borrow	Households mostly obtained this food by borrowing food as a loan from neighbours, family, friends, etc. The difference from gifts is that loan/borrow comes with the intention and expectation that it will be repaid either in food or cash later. Note that this should not be confused with purchases made on credit or loans from shops. Depending on the context and frequency of this option, it could be a normal practice

	to borrow food, or could indicate a strong reliance on outside sources to meet basic food needs.
5. Purchase with cash	Households mostly obtained this food through purchases at formal or informal markets using cash. Note that cash could be earned from regular income sources such as livelihoods activities but could also be received through cash assistance or begging. Thus, while this option typically indicates self-reliance, it needs to be cross-referenced with the income sources of the household.
6. Purchase on credit	Households mostly obtained this food through purchases at formal or informal markets using credit or a loan. This does not include loans/borrowing from friends/neighbours, which falls under option 4. Depending on the context, this could indicate some level of vulnerability (shortage of cash to make the purchase immediately), or it can be considered a normal practice done frequently by many households.
7. Begging or scavenging for food	Households mostly obtained this food through begging, scavenging or theft. This includes strategies such as begging/ asking strangers for food and relying on leftover food from restaurants or shops or resorting to theft. This usually indicates severe food gaps and desperation. However, if a household receives money from begging and uses the money to buy food, then the main source recorded should be cash purchases.
8. Exchange labour or items for food (barter)	Households mostly obtained this food by exchanging labour for food, or as payment for work, or in exchange for other goods or services that they traded. Depending on the local context, it could indicate a level of despair, while in some contexts it is considered normal consumer behaviour. It could also be possible that they have received other food items as gifts or food assistance that do not suit their preferences, so they eventually barter, exchange, or trade them for other food items.
9. Gift (food) from family, friends and neighbours	Households mostly obtained this food as a gift from family, friends, or neighbours, etc. As it is a gift, it is not expected to be repaid. This is different from borrowing (option 4). Depending on the context and frequency of this option, it could indicate a strong reliance on outside sources to meet basic food needs and that the household is considered vulnerable in the community.
10. Food assistance (in-kind and value voucher)	Households mostly obtained this food in the form of assistance (in-kind or value vouchers) from humanitarian organisations (including WFP), civil society, NGOs, or the government. While food assistance includes both modalities – in-kind and cash, only food assistance in the form of in-kind or value voucher should be captured here. Any food purchased with cash received from assistance, regardless of the source, should be counted in purchase (with cash).

When calculating the food source indicator for all the food groups, the individual food sources are weighted according to the frequency of consumption. Thus, the sources of foods that are more frequently eaten are weighted higher than the food sources for foods that are eaten less frequently. For example, if cereals were consumed 7 days with cash purchase being the main source, and dairy was consumed 3 days with gifts as the main source, then cash purchases would be weighted higher in the final food source calculation than gifts. This is done to reflect the higher degree of importance of the various sources of food to evaluate the households' situation and level of dependency on the individual food sources.

6. FCS calculation

Weights of food groups

During the analysis, the eight standard food groups are weighted according to their relative nutritional value (Table 2).

Table 2: Description of food group weights

Food groups	Weight	Justification
Meat, fish and eggs	**4**	Highest quality protein, easily absorbable micronutrients (no phytates), energy dense, fat.
Dairy	**4**	Highest quality protein, source of micronutrients, vitamin A, and energy.
Pulses	**3**	Energy dense, high amounts of protein but of poorer quality than animal sources, micronutrients not readily available (due to presence of phytates), low fat.
Staples	**2**	Energy dense and usually consumed in larger quantities. Protein content lower and poorer quality (poorly digested/ poorly absorbed/ not containing balanced amino acids) than pulses or animal source proteins, and micronutrients not easily absorbable (due to presence of phytates).
Vegetables	**1**	Low energy, low protein, no (or low) fat, source of micronutrients.
Fruits	**1**	Low energy, low protein, no fat, source of micronutrients, high in sugar.
Oil	**0.5**	Energy-dense but with low nutritional value (no or lower amounts of other nutrients).
Sugar	**0.5**	Energy dense but with low nutritional value (no or lower amounts of other nutrients).
Condiments	0	These foods are, by definition, eaten in very small quantities and not considered to add significant nutritional value to the overall household diet and are not considered in the analysis.

Calculation of the Food Consumption Score

The standard FCS module contains eight food groups plus condiments. However, the calculation of the FCS only includes the main eight food groups. Multiply the value obtained for each food group by its weight (see food group weights in table 2) and sum the weighted food group scores, thus creating the score for FCS which is used to group households into the FCGs. An example has been included below in Table 3.

Table 3: Example of FCS and its calculation for a household

Food groups	Frequency of consumption	Weight	Frequency x weight
Cereals, grains, roots, and tubers	7	2	14
Legumes/pulses, nuts, and seeds	2	3	6
Milk and other dairy products	3	4	12
Meat, fish, and eggs	2	4	8
Vegetables and leaves	2	1	2
Fruits	1	1	1
Oil/fat/butter	7	0.5	3.5
Sugar or sweets	7	0.5	3.5
Condiments	7	0	0
		Sum of score	**50**

The Food Consumption Group thresholds

Two standard thresholds have been identified to distinguish different food consumption levels: an FCS value up to 21 means that households are considered to have poor food consumption, while an FCS value between 21.5-35 equals borderline food consumption, and any score above 35.5 means the household has acceptable food consumption.

The standard thresholds are the default thresholds to be used to calculate the FCG. However, in contexts where the diet typically includes (close to) daily consumption of sugar and/or oil, adjusted thresholds have been developed to take this into account, considering that despite frequent intake of these food groups, they have low nutritional value (Table 4). Therefore, adjusted FCG thresholds were created to account for high consumption of oil and sugar in several countries. Both versions of thresholds are available for use, however, the same threshold must be used for a given country/population. Also, it is recommended to use the same threshold historically used to avoid affecting comparability with previous years.

Example: In some countries, the average consumption of oil, sugar and cereals is 7 days per week. As oil and sugar are weighted at 0.5, combined, this gives all households a base score of 7. If this base diet of oil, sugar and cereals is combined, the average household FCS is 21, leaving no households with a poor FCS. However, this clearly cannot be classified as a diet that is borderline, given the very low nutritional value. Thus, in contexts of high oil and sugar consumption, the adjusted thresholds should be used, which involves adding 7 to each threshold to adjust for the high intake of sugar and oil.

Refer to the FCS syntax on the VAM Resource Centre.

Table 4: The two thresholds for FCG

Food consumption group	Standard thresholds	Adjusted thresholds[4]
Poor food consumption	0-21	0-28
Borderline food consumption	21.5-35	28.5-42
Acceptable food consumption	35.5-112	42.5-112

7. FCS-N Calculation

The FCS-N can be calculated as follows:

First, aggregate into the three nutrient rich food groups: As the purpose of the analysis is to assess nutrient inadequacy by looking at the frequencies of consumption of food groups rich in the nutrients of interest, we first need to create the nutrient rich food groups. This is done by multiplying the number of days each relevant food group was consumed:

[4] Used in contexts where the consumption of oil and sugar is high. Consult with your CO RAM/VAM Officer and/or Regional RAM/VAM Officer on applicable thresholds in your country or region.

1. **Vitamin A-rich foods (6 groups)**: dairy + organ meat + eggs + orange vegetables + green leafy vegetables + orange fruits.
2. **Protein-rich foods (6 groups)**: pulses + dairy + flesh meat + organ meat + fish + eggs.
3. **Hem iron-rich foods (3 groups)**: flesh meat + organ meat + fish.

Table 5: Example calculation for vitamin A-rich foods

Vitamin A-rich food subgroups	Frequency
Dairy	2
Organ meat	0
Eggs	1
Orange vegetables	1
Green leafy vegetables	3
Orange fruits	2
Sum	**9**

After that, build the category of frequency for each of the three groups as follows:

1 = 0 times (never consumed)
2 = 1-6 times (sometimes consumed)
3 = 7 or more times (consumed at least 7 times)

Following the example above, the frequency of a household's consumption of vitamin A rich foods is 9. Thus, the household falls under the third group: '7 or more times (consumed at least 7 times).'

⚠ **Reminder!** Some of the subgroups fall under more than one of these three nutrient-rich food groups, e.g., eggs, which are both rich in Vitamin A and protein. This is not an issue for this analysis, as many of these subgroups are nutritionally beneficial in multiple ways. However, this means that while data is collected in the module using frequency in days, over the past 7 days, this means that the sum of the groups may add up to more than 7. For this reason, they are reported as the number of times and not in days.

8. Training on FCS data collection

During the enumerator training:

1. Discuss the **objectives of the module**, i.e., to gain information on the food consumption of households in the targeted population. Explain the importance of this indicator in calculating the food consumption gaps and how the information is used for internal and external reporting and programmatic purposes. This gives the enumerators a clear understanding of the importance of the data they will be soon collecting.

2. For data quality purposes, highlight that **food consumption is one of the food security indicators** that should be triangulated against each other during data quality checks. Therefore, the enumerators should aim to get correct answers, using techniques such as probing. Enumerators must always ask the entire module and never assume on behalf of a respondent.

3. Note the **way in which the main question is worded**, 'In the past 7 days, how many days

did the majority of the members of your household (50%+) consume these foods inside or outside the home?'. Ask the enumerators to remind the respondent that the question is referring to the number of days (not the number of times) where the majority of their household members (more than 50%) consumed foods under each of eight the food groups. All food and drinks consumed by the majority of the household members must be accounted for in the eight food groups, including small quantities, which should be classified as condiments.

4. Note that the recall period is set for the previous 7 days, starting from the day before the interview; the FCS module **always considers the period beginning from the day before the interview and counting backwards**, no matter when the interview is done. For instance, if today is Wednesday, the enumerator should ask about the period from Wednesday last week up to yesterday. It is recommended to use the actual term "the last 7 days" and not "the past week" or "last week" as respondents could get confused if the timeframe is not specific. Responses range from 0 to 7 days.

5. When asking about the food subgroups – e.g., meat, fish, and eggs (which are part of the broader protein group), it is important to note that you **cannot aggregate the subgroups or food items from the same group to get the number of days of consumption for the main group**, as they could have been eaten on the same day. For instance, multiple sources of protein could have been consumed on the same day – e.g., if households ate meat and eggs on the same day. This is especially the case when it comes to the FCS-N module, which includes subgroups of three of the main 8 food groups. The tool presented in Annex III can be printed and provided during the enumerator training to help guide the collection of the FCS data.

6. **A list of relevant food items contextualised based on local dishes and common ingredients** should be discussed internally when updating the tool and introduced to enumerators during the training (see Annex I). This should include a discussion on which food items comprise the most commonly eaten dishes and how they should be registered, i.e., one mixed dish could consist of meat, cereals, pulses and condiments. Examples include soups/stews, curries, sandwiches, and rice dishes. Names of local dishes should be discussed, e.g., *molokhia* (a dish made up of jute leaves) in some Arab countries. For example, if a respondent indicates that the majority of their household consumed a soup made of tomatoes, lentils and potatoes in equal quantities, then each of these foods should be counted as vegetables, pulses and tubers. The enumerator will need to probe extensively to ascertain the ingredients and food items/groups to count. Engage the enumerators in the discussion of what is considered 'normal' consumption habits of the population and how many days of consumption are realistic for different areas/households, and how they can probe to ensure low/high consumption is correct. In addition, it can be helpful to use contextual knowledge to guide respondents – e.g., in some cultures, there are particular days of the week where certain food items are consumed, like meat or fruit on Fridays.

7. During the interview, it is vital that the enumerators **clarify the quantities consumed**, especially for the consumption of protein-rich foods such as dairy, meat, fish and eggs. The typical examples used are a 'sprinkle of fish powder' or a 'teaspoon of milk in tea or coffee'. Small amounts of food items such as these cannot be counted in the analysis, or it will overestimate the food consumption and thus food security levels of the households. On the other hand, though, very milky tea for example, consumed by the majority of the household, should be counted. The enumerators must be able to distinguish how to classify small quantities as condiments; to aid in this process, a complete annex has been provided to guide the classification of condiments (Annex II). During the interview, the enumerator should begin by asking whether the food items reported were consumed by the majority of the household and if yes, then was it the main ingredient of the meal or used as a condiment? Or is it used to adjust the flavour of the meal? If used to adjust the flavour, then it can only be reported under condiments.

8. During the enumerator training, ensure that all **food sources** are clear and that they are attentive to the logic of the respondent during the interview, where quality inconsistencies can already be captured (Table 1). In situations where a household states that a particular food group was sourced equally from two or more main sources, the enumerator must probe to determine which source provided the highest share of the foods belonging to that food group.

⚠ **Days vs. times**: It is important to stress that the FCS and FCS-N modules ask about the number of days that the household consumed food items/groups, not the number of times.

⚠ **Majority of the household (50%+):** If a food item is consumed by less than half of the household members, then it should not be recorded.

⚠ **Meals or snacks:** The module refers to food consumed or prepared inside and outside the home and should account for all food consumed by the majority of the household members, whether during mealtimes or as snacks.

⚠ **Mixed meals:** While mixed/complex meals can be complicated to count, the same rule applies to single ingredients – there must be sufficient quantities of the ingredients to be counted. Noting also that small amounts of multiple of the same food group can be counted if consumed in the same meal, or on the same day, e.g., a mixed salad is made up of small amounts of many vegetables, so vegetables could be counted (Annex II).

9. Data Collection

Data collection of household food consumption must employ the standard food consumption module available here as well as in the CARI technical guide here. The XLSForm on the VAM resource centre also helps in designing forms using Excel which can be converted to MoDA or ODK forms - data collection software. The form can also be generated through the WFP Survey Designer. In addition to the household level data collection, focus group discussions can also be conducted to triangulate the information about dietary habits, food sources and the regular consumption of food groups.

When planning food security assessments, it is important to consider the local context and whether there are any upcoming events that may bias the indicator. Common events include religious fasting periods such as Ramadan as well as various Christian fasting periods, festive periods such as Eid Al-Fitr and Eid Al-Adha, Christmas, local festivals etc. Furthermore, food consumption is often better during harvest/post-harvest season due to wide availability of main crops affecting access and prices,

whereas during lean season households may not have any more crops left for eating while prices in the market are usually higher. These potential biases should be carefully considered when planning the data collection to either avoid them or be aware of the timing and use this knowledge during the interpretation. Remember to take into account the recall period. For example, due to the recall period of 7 days for the FCS indicator, avoiding potential bias of Eid/feast would entail waiting at least until 7 days after all festive celebrations have been completed. In some contexts, the Food Consumption Score is collected during lean and peak season to reflect the seasonality which can be used to better plan food assistance interventions.

Note that for comparability, it is recommended that the FCS and other FS indicators are collected within the same timeframe in the country. If not, the comparability of results over time and assumptions will be limited. For example, for programme activity monitoring, it is strongly recommended that data collection for follow-ups (or endline assessments) happen in the same period/season as the baseline.

10. Quality assurance

Data quality checks should be applied for quality assurance purposes during the data collection phase to flag irregular reported data for early detection of potential data quality concerns. Ideally data quality issues should be captured and corrected as soon as they have been detected to avoid the same mistakes being repeated during the entire data collection, resulting in a bias to the entire dataset. For instance, if meat or dairy consumption is wrongly overreported the food security situation will look either better than the reality, while underreporting of cereal, oil and sugar in countries using the higher thresholds for calculating the FCG etc. will make the situation look worse than the reality.

Data quality checks: It is important to stress that the enumerators are the first point of control for data quality checks. They should check for the following inconsistencies during data collection:

- ⚠ **Irregular consumption patterns**. In contexts where certain food groups are usually eaten daily, e.g., cereals, the enumerator must never assume this is the case for the household. Instead, the enumerator should neutrally ask the question, and in case the household responds with a low consumption for the context, they should probe to confirm; clarify what the household is eating instead, given that cereals usually comprise the main food items eaten on a daily basis. If for example legumes, this may be accepted as it is a key substitute for staples.
- ⚠ **Inconsistences between the main food groups and the subgroups for the FCS-N**. While constraints will likely be set in the questionnaire, the enumerator should also use logic to ensure that subgroup consumption e.g., orange fruits, make sense considering how many days they reported that the household consumed fruits.
- ⚠ **Inconsistences in the main source of food**. In contexts where it is known that many households have recently received food assistance (in-kind or value vouchers), enumerators should question if households report lots of purchases using cash and none for assistance.
- ⚠ **Inconsistencies between the FCS and food expenditures**. The respondent reports not having spent any money on perishable food products (e.g., dairy products) in the past 7 days in the expenditure module but reports frequent dairy consumption with cash purchases being the main source.

Examples of this include:

- Erroneous values
- Missing values
- Abnormal consumption patterns
- Erroneous capture of food groups within subgroups
- Illogical food source.

Logic-based techniques (i.e., validation checks) among modules cannot always be standard as assessment and monitoring questionnaires differ from one country to another, depending on information needs that extend beyond the standard corporate modules. However, visibility and validation constraints (i.e., threshold constraints) should be set prior to the start of data collection exercise and adjusted during the testing and pilot phases. In particular, for the FCS, it is recommended to set constraints to limit the responses to between 0-7 [days]. For the FCS-N, it is recommended to set constraints to ensure that the figures reported for the subgroups do not exceed the number of days reported for the main food group.

Logic-based rules should be included in the design and piloting of questionnaires. If this opportunity is missed during the data cleaning phase, data analysts must ensure data quality through the triangulation of responses.

It is, however, a trade off how many constraints should be implemented as too many constraints may mask which enumerators have a good understanding of the module and which enumerators need additional training. Thus, some analysts may prefer to not apply constraints, and instead do more regular (daily) data quality checks on the data collected to immediately identify which enumerators need to be retrained. This is ultimately up to the analyst to decide, based on their capacity to do high-frequency data quality checks. For the latest recommended constraints, please see the XLSForm on the VAM Resource Centre, or download the module directly from Survey Designer.

Example: Erroneous values
An FCS module in a dataset contains values that are wrong by either exceeding the number of days in a week (>7) or being negative.

Suggested ways to deal with this:

- **During the tool design phase:** It is recommended to code the XLS form to only allow values between 0-7 to avoid typos or erroneous values.

- **During the data quality checks:** If, for whatever reason, there are still households with erroneous data, this should be captured during the daily data quality checks. The analyst should immediately flag issues to the field teams to correct the issue both in terms of providing the correct number (e.g., in case of typos) and paying more attention to not replicating the same mistake in the future.

- **During the data analysis:** In case of values greater than 7 (days of consumption) recode to 7 days maximum. However, be wary of 8s – for the FCS module, and all modules – as the '8' is located just above the '0' on a telephone (and tablet) keypad, 8s are frequently mistaken for

0s so be careful in recoding data to first check for 8s, which may be recoded to 0 rather than 7. Check also for 99 or 999 meaning not applicable and should be recoded as 0s.

Example: Missing values
Households have data missing in this FCS module.

Suggested ways to deal with this:

- **During the tool design phase:** The questions in the FCS module should be programmed as mandatory, so that it is not possible to skip any of the module, leaving data gaps.

- **During the data quality checks:** If the quality checks show that some enumerators still have missing values, this must immediately be flagged to the enumerators concerned. It should be considered to fix the coded restrictions to ensure this mistake is not repeated.

Example: Abnormal consumption patterns
Some households reported food consumption that does not look logical for the context. Examples include entire module is filled with zeros (no food consumption in the past 7 days) in contexts that are not normally seeing famine-like conditions, or low oil and sugar consumption in contexts where these groups are normally eaten daily. Other examples are if staple foods are only consumed few days a week, or a large share of households eating all eight food groups all days of the week. All these examples show situations where there could reasons to believe that the enumerator may have rushed through the module, or the respondent was fatigued.

Suggested ways to deal with this:

- **During the tool design phase**: Add a qualitative follow-up question to the XLS form so a popup message appears to give an option to verify the validity some answers that you foresee could get underreported, e.g., by asking "Why were cereals consumed less than 4 days over the past 7 days? What did the household eat instead?".

- **During the data quality checks:** The analyst should always conduct thorough data quality checks including low values of cereal, sugar and fat/oils, and high values of food groups usually not consumed daily to identify patterns. Calculate the FCS and check for outliers. Then check common factors – is the data coming from the same enumerator, or from the same area. If a few enumerators report data that is very different from the rest of the team, it is recommended to follow up and ensure that data is accurately reflecting the situation.

  Sometimes, outliers can be explained, e.g., if one team is surveying a deserted pastoralist population which have a diet that differs significantly from the rest of the population. The main thing is that it is important for the analyst to get an idea of whether all enumerators are collecting the data correctly so that the data is accurately capturing the situation. Once the data collection has finished, it can be difficult to clean this type of data.

Example: Erroneous capture of food groups with subgroups
The number of days of consumption of food subgroups can never exceed the number of days the main food group was consumed. For example, it is not possible for a household to report that they

ate green leafy vegetables 5 days per week if they only consumed vegetables 3 days per week. On the other hand, green leafy vegetables can be consumed 4 days while vegetables are consumed 6 days, since the household can eat other vegetables (main group) not falling under the subgroup.

Suggested ways to deal with this:

- **During the tool design phase:** It is recommended to code the XLS form to only allow values that are less than the maximum of the value of the main group. Furthermore, it is recommended to include an exhaustive list of all examples possible in the context for all main groups and subgroups to ensure all relevant food items and local dishes are captured (Annex I).

- **During the data quality checks:** If, for whatever reason, there are households with data in the subgroups that exceeds the maximum values of the main groups, the analyst must immediately flag this to the enumerator(s) of concern to ensure the mistake is not repeated.

- **During the data analysis:** In cases where the days of consumption of the subgroup is higher than that of the main group, analyst must decide based on a contextual discussion whether the main group or the subgroup should be set as the maximum.

Example: Illogical food source
Some households reported food sources that do not look logical for the context. For example, high reporting of own production or fishing/hunting in deserts, urban or landlocked areas. Further, there are certain food sources that only make sense for some food groups, e.g., hunting/fishing only applies to 'meat, fish and eggs.'

- **During the tool design phase:** It is recommended to code the XLSForm to only allow the hunting/fishing option of food sources for the protein food group.

During the daily data quality checks: Check the FCS sources thoroughly for illogical answers by using knowledge of the local context and triangulating with the other relevant data points gathered in the same interview. Afterwards, check the flagged issues for common factors – is the data coming from the same enumerator, or from the same area and follow up with them immediately. Once the data collection has finished, it is difficult to clean this type of data.

11. Analysis of the FCS module

To analyse the FCS, please consider the following steps:

1) Calculate the **average number of the days of consumption of each food group** to help understand the general food consumption patterns, at the national level, by region or population group (e.g., male vs. female-headed households, beneficiaries vs. non-beneficiaries), or before and after assistance etc. e.g., reporting:
   a) Bar chart reflecting the number of days all food groups were consumed by host community and IDPs in a district to show differences in diets.
   b) Table reflecting the number of days all food groups were consumed by district to show differences in diets.

2) Compute the **mean FCS**, which can be used to understand the development in food consumption over time or between different population groups, e.g., reporting:
    a) A line chart reflecting monthly average FCS over one year to reflect seasonality.
3) Create the **three Food Consumption Groups (FCGs),** using the titles 'poor,' 'borderline,' and 'acceptable,' based on the recommended standard cut-offs (see Table 3), e.g., reporting:
    a) Line chart reflecting inadequate food consumption (poor + borderline) at national and regional levels.
    b) Bar charts highlighting governorates with high levels of poor food consumption.

12. Analysis of the FCS-N module

For the FCS-N, the following analysis can be conducted:

- Percentage (%) of households by consumption frequency categories (i.e., never, sometimes, at least 7 times) for each of the nutrient rich groups
- Percentage (%) of households by consumption frequency of nutrient-rich food groups, differentiated by the food consumption groups (FCGs) of the FCS (i.e., poor & borderline, vs. acceptable food consumption).
- Percentage (%) of households by consumption frequency of nutrient-rich food groups by: geographical area, livelihood groups, population groups, Food Expenditure Share (FES).

13. Opportunities for additional analyses

Food items which are very commonly consumed within a country, or which have a different nutritional value within a food group, may warrant their own distinct inclusion as a subgroup, after asking about the main food group. For instance, distinguishing household consumption of the country's main staple cereal could be useful for understanding how important it is to different population subgroups; 'bread' may be asked separately as a subgroup, after asking about the broader food group 'cereals and grains.' Similarly, in contexts where fortified foods (e.g., staple foods, oil, etc.) are commonly consumed, they can be added as a subgroup of their main group. For example, Super Cereal Corn Soya Blend (CSB) or High-Energy Biscuits (HEB) could be added as a subgroup of the cereals group to understand the prevalence of the consumption of WFP general food assistance (GFA), and because it has a different nutritional value to other staples.

⚠ **Fortified foods:** In contexts where fortified foods are commonly consumed, it may be useful to include them as subgroups of their main food group, as they have a different nutritional value to their unfortified counterparts.

⚠ **Attention!** The standard 8 food groups plus condiments must be maintained in the module. However, specific food items can be asked as follow-up questions in subgroups, e.g., in some countries, after asking about fats and oils, there is a subgroup for olive oil.

However, the disaggregation of food items as subgroups from the standard food group list cannot be included in the overall FCS analysis, as this may inflate the scores. The FCS must be calculated from only the eight main food groups. Other food items may be listed out separately for additional analyses only. For the purposes of analysis, even if a country decides to separate out certain food items as subgroups these should be asked only after the main aggregate question about the standard food group is asked in

order to get the maximum figure for the calculation of the frequency of consumption of the food group (e.g., cereals) before delving into individual food items under this category. Note that, in no instance should a food item listed as a subgroup supersede the total for the main food group and relevant constraints should be applied.

Similarly, in contexts where the IPC is applied, assessments may also decide to collect the Household Dietary Diversity Score (HDDS). It should be noted though that while in the past, it has been accepted to add follow-up questions to the FCS/FCS-N modules to collect the HDDS module at the same time. However, this combined module of FCS/FCS-N/HDDS should not be used, as the methodologies for FCS/FCS-N and HDDS are not compatible. Not only are the recall period (yesterday, compared to the last 7 days) and food groups different, but also HDDS rather asks about consumption of food groups by anyone in the household (compared to majority of the household for FCS/FCS-N), and counts all quantities (even small quantities). For more information, see the resources on the VAM Resource Centre **here.**

14. Convergence

The FCS indicator should be seen as an essential part of understanding the overall food security situation of a given population. It is also often linked to actual programme objectives, e.g., the objective of providing food assistance to a population is often to increase the share of the population with acceptable food consumption, or alternatively, to reduce the share of the population with poor food consumption.

It is always recommended to use more than one indicator of food security in an analysis (i.e., livelihood coping strategies (LCS), reduced Coping Strategies Index (rCSI), Household Hunger Scale (HHS), Household Dietary Diversity Score (HDDS), food expenditure share (FES), economic capacity to meet essential needs (ECMEN). This not only permits triangulation of findings but also deliberately uses indicators that capture different elements of the complex notion of food insecurity. This enables the convergence of findings, providing greater confirmation of food security status. Refer to the Consolidated Approach for Reporting on food Insecurity (CARI) guidance and Integrated Phase Classification (IPC) manual for more information on the convergence of indicators.

In addition, the information on food sources is particularly important for triangulation purposes, to be cross-referenced with the food expenditure share (FES), levels of assistance and reporting of coping strategies in the short-term (i.e., rCSI) and long-term (i.e., LCS), including looking at the reported levels of borrowing and begging, respectively.

15. Limitations

Temporal: The FCS reflects the current food consumption status of a household and does not provide an indication of the households' ability to remain food secure over time.

Unit of analysis: It is a household-level indicator not providing information about intra-household differences or individual dietary diversity; while it is a good indicator of a household's food security

status, it does not help in understanding the food security of specific groups of people as individuals within a household, like women of reproductive age or children.

Dietary diversity: As the FCS is a composite score of the frequency and weighting of the food groups, this means that, depending on the food groups consumed (and their corresponding weights) the score can sometimes mask dietary diversity. For example, a household that reports consumption of dairy (weight of 4) 7 days per week would receive the same score of 28 as a household that consumed a more diverse diet of 4 different food groups: cereals (2), vegetables (1), oil (0.5) and sugar (0.5). Further, differences in food items within food groups are also masked in the calculation; for example, whether a household ate the same vegetable over three days in a week or three different vegetables (which would be presumably better for nutrition and dietary diversity), it would result in the same consumption frequency of 3 for vegetables in the calculation of the FCS. That said, other food security indicators like the household dietary diversity score (HDDS) also do not capture this level of detail.

Nutritional value: The weightings for FCS apply to the groups, and not to the items within the groups - for example, spinach is much more nutrient dense than romaine or iceberg lettuce, they both fall under vegetables. The analysis can mask important dietary patterns (e.g., cassava vs. maize consumers), which have an equal FCS despite different nutrient levels. This is why the FCS-N was developed, and why it is possible to separate out food items from underneath food groups if this can be relevant for additional nutritional analyses.

Quantities: While it is important to consider the quantities consumed in the context of classifying certain food items as condiments rather than within the other eight quantifiable food groups, the FCS and FCS-N modules do not gather information on the actual quantities of food items that households consumed. While this data would be useful, the time and skill required to capture actual amounts consumed is too complex and time-demanding for most surveys. Further, the bias in recalling the actual amounts eaten is generally much greater than recalling the number of days that foods were eaten.

Quality: The FCS does not consider the quality of the foods consumed. This should be reflected in other indicators e.g., rCSI. For example, 97% of households in an area of a country consumed fruits in the last 7 days, and qualitative data explained that the consumed fruits were rotten or nearly spoiled. The consumption of these foods – regardless of being spoiled or rotten - must be captured by the FCS module, and under 'Relied on less preferred, less expensive food' in rCSI module. Quality aspects can also be discussed during focus group discussions (FGDs), if these are planned to complement the quantitative food security assessments.

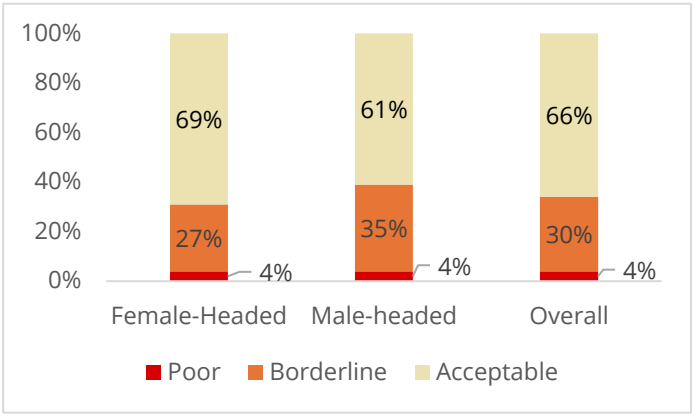
16. Interpreting the FCS and FCS-N

To analyse the FCS, it is common practice to report the share of households within each food consumption group (households with poor food consumption, borderline food consumption, and acceptable food consumption). This can be disaggregated by male and female-headed households compared to the overall (Figure 1). For reporting purposes, the term 'inadequate food consumption' can also be used to merge poor and borderline food consumption into one group of households reflecting food consumption gaps.

"Analysis results of the FCS indicate that one in three households have inadequate food consumption levels.

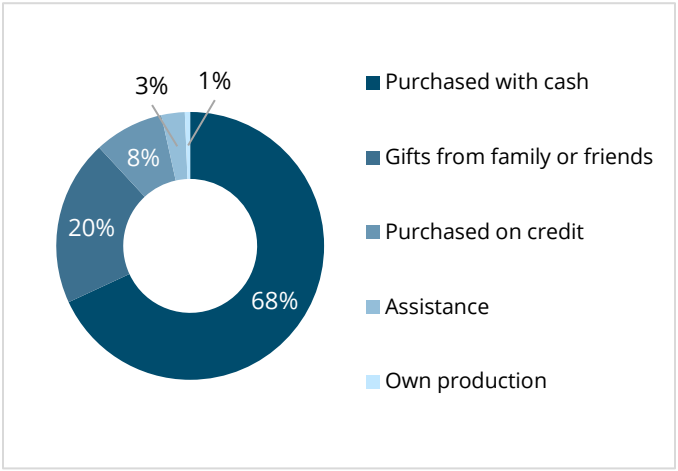
A higher proportion of male-headed households have inadequate food consumption, an 8-percentage point difference compared to female-headed households (39% and 31%, respectively). "

Figure 1 - Proportion of male and female-headed households by food consumption group.



Besides the percentage breakdown of the population into the three food consumption groups, it is recommended to present the average number of days that the different food groups were consumed. In addition, it is important to analyse the main food sources (Figure 2).

Figure 2 – Main source of food.

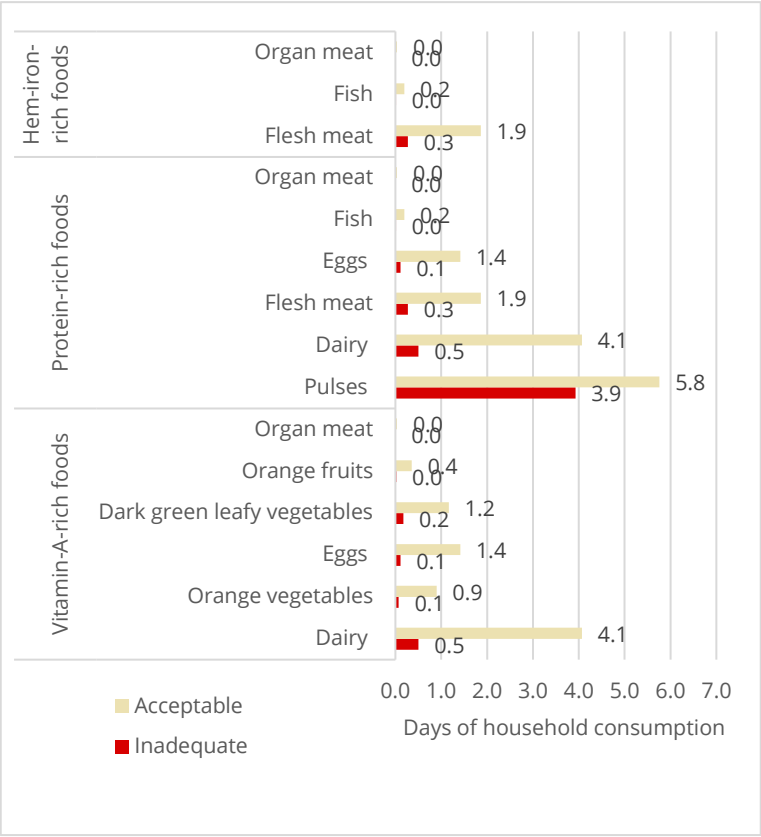


"Analysis results of the main sources of food indicate that 68% of households acquired their food through cash purchases, followed by gifts from family and friends, purchases on credit and assistance.

While in this case, there are many cash purchases, it should be noted that much of the cash was likely to have come from remittances, as 36% of the population are relying on remittances as the main income source (followed by non-agricultural wage labour at 23% and salaried work at 21%. "

When reporting on FCS-N, ensure that your analysis narrative clarifies when high percentages of households have not consumed or reported low consumption of specific nutrient-rich groups, then they face higher risks of micronutrient deficiencies (Figure 3).

Figure 3 – Number of days food groups consumed by households with acceptable vs. inadequate consumption.



"When looking at the number of days that food groups were consumed by households with acceptable vs. inadequate food consumption levels, it is apparent that households with acceptable food consumption tend to eat more flesh meat, eggs, dairy, pulses, dark green leafy vegetables, and orange vegetables. Meanwhile, there are no differences between average consumption of organ meat, fish, and orange (vitamin-A rich) fruits."

Nevertheless, consumption levels of Hem-iron-rich foods shows a concerning situation for most households, both with inadequate and adequate food consumption levels."

Colour coding for the prevalence of food consumption categories

A standard colour pallet has been set for visualising the FCS results. The colour codes in RBG and HEX in the column order of visualisation are indicated in the below table.

Coping Classification	Colour Code (RGB)	HEX
Acceptable food consumption	236, 225, 177	#ECE1B1
Borderline food consumption	230, 117, 54	#E67536
Poor and/or inadequate food consumption (poor and borderline merged)	215, 0, 0	#D70000

Annex I: Food items: what goes where – in which food group.

While the food groups are standard, the food items listed in this table should be customised to the country context.[5]

No.	FCS food group and FCS-N subgroup	Food items	FCS-N components
1	**Cereals, grains, roots and tubers**	*Any foods made from **grains** (rice, oats, wheat, sorghum, millet, maize, corn soya blend (CSB), teff (injera[6]), fonio, quinoa) such as, pasta, noodles, bread, couscous, ugali, nshima, tortillas and arepas.* ***White roots and tubers, or plantains** such as potato, white flesh sweet potato, cassava/manioc, taro, rutabaga, turnip, yam, and/or other tubers* *[Exclude orange sweet potatoes - vegetable]*	
2	**Pulses, legumes, nuts, and seeds**	***Beans** (e.g., black, kidney, pinto, cannelloni, soy), cowpeas, pigeon pea, chickpea, lentils* ***Nuts** (groundnuts/peanuts, Brazil nut, cashew, pistachio, hazelnuts, chestnut, walnuts, other nuts) and nut butters[7] (peanut butter, cashew butter)* ***Seeds**[8] in large quantities (almonds, pumpkin seeds, sunflower seeds, sesame seeds, linseeds, rapeseeds) and tahini* *Includes also tofu, tempeh and other soy products* *[Exclude beans that are eaten immature or in the pod (green beans and fresh peas, which are vegetables); oils extracted from nuts and seeds are not included (oils & fats)]*	**Protein**
3	**Dairy**	*Any milk or milk products from cows, goats, buffalo, camels, sheep, or horses, including tinned, powdered, and ultra-high temperature (UHT) milk. Examples include **milk, yogurt, kefir, cheese (hard, soft and processed), other dairy products*** *[Exclude margarine/butter, cream (fats), ice cream (sugars) and small amounts of milk for tea/coffee (condiments)]*	**Protein** **Vitamin A**
4	**Meat, fish and eggs**	***Meat** beef, pork, lamb, goat, rabbit, poultry (chicken, turkey, duck), other birds (quail), bush meat, wild game, horse, donkey, dog, cat, rats, guinea pigs; insects (larvae/grubs, caterpillars, termites,*	

[5] Given the variations in foods and the way that they are prepared and consumed in different countries, please contact global.assessmentandtargeting@wfp.org if you have any specific questions or concerns about the classification of food items.
[6] The primary ingredient of injera is a grain or the flour is made from a mix of grains. The simplest injera is made from grain (flour) and water. Some injera may include small amounts of legumes. However, amounts of other ingredients vary and are small, and to avoid falsely inflating food group diversity all types of injera should be classified with grains.
[7] This group also includes nut and seed "butter", such as pounded groundnut/peanut butter, cashew butter or sesame butter (tahini), when consumed in substantial amounts and not merely added to flavour mixed dishes. Oils extracted from nuts are not included in the group.
[8] While seeds are usually recorded in the "condiment and seasoning", they are included in the nuts/seeds category if they are substantial ingredients in local mixed dishes or eaten as a substantial snack or side dish.

		crickets, grasshopper, ants) escargot (snails) and frogs, snakes, crocodile, or alligator ***Fish** (including canned tuna), shellfish (mussels, shrimp, crab) and other seafood (octopus)* ***Eggs** from all birds (chicken, duck, guinea fowl, quail)*	
i.	*Flesh meat*	*beef, pork, lamb, goat, rabbit, poultry (chicken, turkey, duck), other birds (quail), bush meat, camel, horse, donkey, dog, cat, rats, guinea pigs, crocodile, or alligator* *[Exclude escargot, and insects][9]*	*Protein* *Hem iron*
ii.	*Organ meat*	*Liver, kidney, heart, gizzard, blood-based foods like blood pudding and/or other organ meats*	*Protein* *Vitamin A* *Hem Iron*
iii.	*Fish*	*Fish/shellfish, including canned tuna and/or other seafood*	*Protein* *Hem Iron*
iv.	*Eggs*	*Eggs from all birds (chicken, duck, guinea fowl, quail)* *[Exclude fish eggs]*	*Protein* *Vitamin A*
5	**Vegetables and leaves[10]**	*Spinach, tomatoes, onion, cucumber, okra, beets, carrots, bell peppers, mushrooms, green beans, fresh peas, lettuce, cabbage, celery, eggplant, pumpkin, orange sweet potatoes[11], broccoli, zucchini, cauliflower, artichoke, asparagus, bamboo shoots, beets, brussels sprouts, dark green leafy vegetables (cassava leaves, amaranth)*	
v.	*Orange vegetables*	***Orange vegetables** - carrot, red pepper, pumpkin, orange squash, orange sweet potatoes*	*Vitamin A*
vi.	*Green leafy vegetables*	***Dark green leafy vegetables** such as broccoli, spinach, kale, arugula and leaves of: pumpkin, amaranth, alfalfa, cassava, potatoes, cowpeas, jute, seaweed, etc.) and dishes like molokhia* *[Exclude light leaves like iceberg lettuce and cabbage (other vegetables); do not include herbs like parsley (condiments)]*	*Vitamin A[12]*
6	**Fruits**	*Banana, apple, lemon, mango, papaya, apricot, peach, pear, baobab fruit, watermelon, grapefruit, guava, orange, tangerine, jackfruit, kiwi, lychee, durian, pineapple, berries, passionfruit, avocado, coconut flesh, dates (fresh), tree tomato/tamarillo* *[Exclude packaged fruit juice]*	
vii.	*Orange fruit*	***Orange fruits** that are dark yellow or orange inside, including mango (ripe), papaya (ripe, fresh or dried), apricot (fresh and*	*Vitamin A*

[9] Note that while insects are high in protein, the research on the iron content on the vast variety of the different types of insects (e.g., crickets, grasshopper, ants) is still inconclusive. Thus, in contexts where insects are commonly consumed, it is suggested to make a subgroup for these to be added to the protein calculation for FCS-N.

[10] This group includes stems, fruits, flowers, and plants that are generally consumed in savoury dishes and considered vegetables in culinary systems. For this reason, it includes tomato, cucumber, and okra fall under this category.

[11] Orange sweet potatoes are technically a tuber, but very rich in vitamin A and therefore must be counted in the vegetable group.

[12] https://pdf.usaid.gov/pdf_docs/Pnacb907.pdf

		dried), cantaloupe (ripe), peach (dried or raw), persimmon (ripe), red palm fruit[13], loquat *[Exclude oranges, mandarins, and passion fruit; do not include unripe mango (must be orange inside)]*	
7	**Oil, fat and butter**	***Oils** (Vegetable oil, sunflower oil, palm oil, coconut oil, olive oil, sesame oil)* ***Fats and butter**: butter, shea butter, ghee, lard, margarine, cream, sour cream, shortenings, other fats/oil* *Include also deeply fried snacks (e.g., potato chips, doughnuts, samosas, etc.)[14]*	
8	**Sugar**	*Sugar, honey, jam/marmalade, candy, biscuits[15]/cookies, chocolate, cakes, pastries, pie, baklava, halwa, other sweets, fruit juice, other sugary drinks, including soda and very sugary tea, ice cream, condensed milk, and dates (dried and preserved) consumed in large quantities*	
X.	Condiments	*Ingredients used in small quantities for flavour such as tea, coffee, cocoa powder, broth, stock cubes, salt, pepper, garlic[16], spices and herbs (e.g. parsley), chilies, seeds in small quantities (chia seeds, sesame seeds), yeast, baking powder, tomato paste, condiments (ketchup, mustard, mayonnaise), olives, pickled vegetables (cucumbers/onions/capers), fish powder/paste/sauce, beer, wine and other spirits* *Small quantities of other all other food groups (e.g., milk, nuts, meat, fish, eggs) – see Annex II.*	

[13] Red palm fruits and oil are high in vitamin A; however, only the red palm fruits should be counted if consumed by all. Oil is not counted separately as it is generally mixed in dishes and difficult to ascertain the quantities.
[14] Does not include fried foods consumed as a meal such as fried chicken and fried potatoes which may counted in other food groups. It should only include low-cost, nutrient-poor foods such as donuts and potato chips, depending on local context.
[15] Note that high-energy biscuits (HEB) are food rations containing high-protein cereals and should be counted as a sub-group of cereals; similar to Super Cereal Corn Soya Blend – CSB), they should be counted as a fortified food and a separate subgroup to the main group.
[16] Onion and garlic are generally considered as 'condiments' as they are usually consumed in small quantities, e.g., 1-2 cloves in a dish or 1-2 onions per dish.

Annex II: Small quantities – examples of cut-offs for condiments

No.	Food group	What does not count – daily consumption Register as condiments	What counts – daily consumption Register under main food groups
1.	**Cereals, grains, roots and tubers**	• breadcrumbs sprinkled over a dish	• One small bowl of rice per person • One small plate of pasta per person • One full pita/naan/wrap/tortilla[17] per person • One slice of a loaf of bread per person • ½ injera per person • Half of a large potato or one small potato per person
2.	**Pulses, legumes, nuts**	• A sprinkle of nuts or seeds over a shared dish • 1 tablespoon of peanut butter, used to flavour a dish	• One small bowl of nuts per person • 1 tablespoon of peanut butter per person • 1 tablespoon of hummus per person • 1 tablespoon of small seeds per person
3.	**Dairy**	• A splash of milk/spoon or powdered milk added to tea or coffee • Grated cheese sprinkled over a meal • A spoonful of yogurt, used to flavour a dish • Very liquid or watered-down yogurt	• 1/2 cup of milk per person (fresh or powdered) • A small piece of cheese (like a box of matches) per person • 1 tablespoon of soft cheese per person • One small cup of yogurt per person / one heaped tablespoon or dollop of yogurt person
4.	**Meat, fish and eggs**	• Less than 1/2 egg per person, e.g. one egg on top of a shared dish • Eggs used in baking • One small piece of meat (like a box of matches) for more than one person • Fish powder spread over meals • Fish sauce/paste used in a dish • A piece of meat or fish to add flavour to a soup or dish • Bone broth • Dried fish	• 1/2 egg (duck or chicken) per person • 2 quail eggs per person • Half- or whole-sized fish per person • Handful of small fish (e.g., sardines, shrimp) • 1 small piece of organ meat (size of matchbox) per person • 1 small piece of meat (size of matchbox) per person • Half a can of tuna per person • A handful of insects (e.g., termites, crickets, or caterpillars) per person
5.	**Vegetables and leaves**	• Garlic cloves used to flavour a dish • One or two tomatoes, used to flavour a dish • Two onions or less, used to flavour a dish • Tomato paste, tomato sauce or ketchup used to flavour a dish • Any amount of cucumber, cauliflower and/or carrot consumed only as pickle • Leaves: a few leaves for all	• Half of a vegetable per person (e.g., cucumber, bell pepper) • A dish made primarily from tomatoes as a base (or any other vegetable) • 1 medium onion per person • Leaves: handful serving per person
6.	**Fruits**	• Fruits used to flavour refreshments (e.g., a lemon slice added to a drink) • One small piece of fruit, split between 2 or more people - with the exception of larger fruits, where half would suffice • Grated fruit (e.g. coconut, apple) over a dish • Sliced pineapple used to flavour a dish • Less than 3 fresh dates per person • Coconut water	• One full piece of smaller fruit per person (e.g., mandarin, sugar banana, passionfruit) • ½ a piece of bigger fruits (e.g., apple, pear, orange, banana) per person • 1 slice of pineapple per person • 3 fresh dates per person • A handful of berries per person (fresh or frozen) • Half a cup of dried fruit per person • ¼ avocado per person
7.	**Oil, fat, and butter**		• Any amount of oil should be counted (including a splash of oil added to a shared dish)

[17] Note that pita bread is a term that covers most Mediterranean breads, found in e.g., Egypt, Lebanon, Greece, Syria, etc.

			• Any amount of butter or ghee per person • A handful of potato chips per person
8.	**Sugar or sweets**		• Any amount of candy, biscuits/cookies or chocolate (even one small piece) • Any amount of dried dates • A cup/box of fruit juice per person • Sugary tea (with one tablespoon or more) per person

Annex III: Table for calculating the number of days in the main food groups.

This tool could be printed and used by enumerators to help respondents to remember the daily consumption of different food groups.

Reminder: foods consumed in small quantities are not counted [18]		Over the past 7 days, how many days did most of the members of your households (50%+) consume the following foods?							
Food groups		Consumption days							
		1st day	2nd day	3rd day	4th day	5th day	6th day	7th day	Total
FCS1	**Cereals, grains, roots and tubers**: rice, pasta, bread, sorghum, millet, maize, potato, yam, cassava, white sweet potato, taro and plantain								
FCS2	**Pulses, legumes, nuts and seeds**: beans, cowpeas, lentils, soy, pigeon pea, peanuts, or other nuts								
FCS3	**Milk and other dairy products**: milk, yogurt, cheese, and other dairy products								
FCS4	**Meat, fish, and eggs**								
FCS4.1	**Flesh meat:** beef, lamb, goat, chicken, duck, sheep, camel								
FCS4.2	**Organ meats**: liver, kidney, heart								
FCS4.3	**Fish or seafood**, including fresh, frozen and canned, such as tuna, sardines, etc.								
FCS4.4	**Eggs** from poultry								
FCS5	**Vegetables** such as cucumbers								
FCS5.1	**Orange vegetables** (rich in vitamin A): carrots, bell peppers, pumpkin, and orange sweet potatoes								
FCS5.2	**Dark green leafy vegetables**: spinach, watercress, broccoli, and others								
FCS6	**Fruits**: apples, oranges, grapes, bananas, fresh dates								
FCS6.1	**Orange fruits**: apricots, peaches, etc.								
FCS7	**Oils, fats and butter**								
FCS8	**Sugar and sweets**								
FCS9	**Condiments and spices**								

[18] Note that this example is based on an example provided by Syria's Food Security Assessment (FSA) team.

Acronyms

CARI	Consolidated Approach for Reporting on Food Insecurity
CO	Country Office
CSB	Corn Soya Blend
ECMEN	Economic Capacity to Meet Essential Needs
FCS	Food Consumption Score
FCS-N	Food Consumption Score Nutrition Quality Analysis
FGD	Focus Group Discussion
FES	Food Expenditure Share
GFA	General Food Assistance
HDDS	Household Dietary Diversity Score
HEB	High Energy Biscuits
IPC	Integrated Food Security Phase Classification
LCS	Livelihood Coping Strategies
rCSI	Reduced Coping Strategies Index
WFP	World Food Programme

World Food Programme

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