Meta data for the Food Consumption Score (FCS) indicator

Table 1 Food Consumption Score	
Identifier	
Definition	The frequency weighted diet diversity score or "Food consumption score" (FCS) is a score calculated using the frequency of consumption of different food groups consumed by a household during the 7 days before the survey. There are standard weights for each of the food groups that comprise the food consumption score.
Custodian	
Note (public)	
Unit of measurement	Weighted sum of frequency of household consumption, a continuous variable with a possible range of 0 to 112
Rationale (20-200 words as a guide)	The food consumption score is a standardized and transparent methodology; repeatable standardized data analysis is possible within a dataset (one analyst can easily reproduce the FCS on a dataset identical to that created on the same dataset by another analyst). The methodology also gives a comparable analysis between datasets, although this does not imply that the score has the same meaning for all households in all contexts. The FCS is also able to capture both Dietary Diversity and Food Frequency. The longer recall period (as well as the weights, to some extent) allow for a more 'stretched out' score that provides more analytical options than a dietary diversity indicator with only 8 or 9 values possible, for example.
Sources of data	Household surveys
Frequency	As part of CFSVAs, every 3 to 5 years where such information is needed. For food security monitoring, every 1 to 6 months is recommended.
Author of meta data	Peter Horjus
Note (admin)	
Note (translation)	
Concept (link to id)	See tables for food group, food item, dietary diversity, food frequency, condiment.
Methodology (100-500 words as a guide)	The module gathers food consumption data based on a 7 day recall. ('how many days in the last 7 days did your household eat xx?'). These data are grouped into food consumption groups (maximum value of 7) and then, using standardized weights, combined into a composite score (the Food Consumption Score).

	The food consumption groups include: starches, pulses, vegetables, fruit, meat, dairy, fats, sugar. If these groups are surveyed in a disaggregated fashion, the consumption frequencies of the different foods in the groups are summed, with the maximum value for the groups capped at 7. The formula, based on these groups, with the standard weights, is: FCS = (starches*2)+ (pulses*3)+ vegetables + fruit + (meat*4)+ (dairy*4)+ (fats*.5)+ (sugar*.5). WFP advises a recall of 7 days to ensure both good time coverage and "reliability "of respondent's memory. According to practical data collection experience (WFP and others), 7-day seems to be the most appropriate recall period to capture information about household's habitual diet, taking into account the limits given by possible seasonal consumption. A recall period longer than 7 days has proved to be problematic as difficulties in remembering what was prepared appear to increase. A shorter recall period would risk missing foods served habitually but infrequently at the household level, for example on market days, Fridays (in Muslim areas), or Sundays (in Christian areas); or it would overestimate the consumption if the survey is done over those special days. The solution of introducing a control question "Was yesterday a celebration or feast day where you ate special foods?" is not appropriate in term of analysis for two main reasons. The first is statistical: that control question would divide the sampled households into 2 categories reducing the valid number of households for the statistical estimate and thus increasing the confidence interval of that estimate. Second, if the solution to exclude special days and instead to ask the household to describe a recent 'normal' day, then this conflicts with the definition of what we aim to measure, i.e. household's current habitual diet. The argument that special days are to be excluded from the estimate of the household consumption has to be rejected. Special days and weekly or normal days are both part of the normal household consumption, required to estimate habitual diet. Not including special days into the analysis would result in an underestimation of household food consumption. Of course, long periods of special diet days like Ramadan, other fasting periods or special long festivities must be avoided because the 7-day recall would represent household dietary habits for that exceptional period only. An additional benefit of increasing the recall period (assuming little increase in recall bias) is a decrease in inclusion/exclusion error when categorizing households into FCGs. While at the population level, inclusion and exclusion errors are assumed to equal out, some descriptive power may be lost with a decreased recall period. For example, a household that eats meat 2 times per week may have only 0 or 1 for consumption yesterday. If meat consumption is randomly distributed throughout the week, then 2/7 of households eating meat twice a week will have a response of 'yes' for a 1-day recall, and 5/7 of

	households will have a 'no' for a one day recall. A decrease in inclusion/exclusion error will also strengthen the statistical relationship between the FCS and FCGs and other indicators. The list of foods should be all encompassing and the items exclusive (all foods eaten will fall into a single category). The list should contain between approximately 10 and 25 items, with condiments (foods eaten in small quantities for flavor only, such as small amounts of milk in tea or fish powder in a stew) recorded separately. These foods are combined (summing the values) into food groups, the maximum value for any food group is capped at 7. Each food group is then multiplied by a specific weight. These food groups (and weights in parentheses) are: Starch staples(2), pulses(3), vegetables(1), fruit(1), fats(0.5), sugars(0.5), meat/fish/eggs (4), milk/dairy(4), condiments(0). The sum of the weighted food group values is the FCS. The weights are described in more detail, including justifications, in the FCS guidance [1].
Disaggregations	The individual food items surveyed can be reported individually, and also used to describe the average diet at different levels of the FCS.
Limitations	• The assumption of the applicability of the analysis across time, context, location, population, etc. • The food group weights are based on certain inherently subjective choices. • The analysis can mask important differing dietary patterns (for example, manioc consumers vs. maize consumers) that have an equal FCS. • Certain aspects of diet, such as kcal values or intra household food distribution, are not measured.
Related indicators (ids)	The HDDS and IDDS, as described by FANTA , which is a similar methodology but with more rigidly defined food groups and a 1 day recall, which is administered either to women of reproductive age or to the HH as a whole. (some surveys have collected the data for the HDDS and FCS simultaneously, although some exceptions in methodology have to be made to allow the fusion of data collection methodologies). Many methodologies also exist to measure actual consumption (through detailed recall or actual weighing of foods eaten) to estimate kcal consumption. The CSI (coping strategies index) and HFIAS (household food insecurity access scale) are also somewhat related, as they are consumption based (from the approach of behavior and coping) and are used also as proxies for food security. The CSI is another of WFP's generally used proxies for food security, and is described in its respective module.

[1] http://documents.wfp.org/stellent/groups/public/documents/manual_guide_proced/wfp197216.pdf

	If food expenditure data are gathered, an attempt to harmonize the lists of foods/food items should be made so the data can be better linked, if so desired.
Related module (from Question Bank)	Coping Strategies Index
Related references	WFP Food consumption analysis technical guidance sheet. (http://www.wfp.org/content/technical-guidance-sheet-food-consumption-analysis-calculation-and-use-food-consumption-score-food-s) WFP CFSVA guidelines. (http://www.wfp.org/content/comprehensive-food-security-and-vulnerability-analysis-cfsva-guidelines-first-edition)
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Quality control	Beyond ensuring the quality of the questionnaire, enumerator training, and field supervision, the consumption patterns of the individual foods should be explored for logical inconsistencies after cleaning. For example, large numbers of households not consuming starchy foods, or fish eaten in non-fish eating areas (possibly through the misinterpretation of fish powder spice/condiment as fish consumption) are examples of inconsistencies to examine. The distribution of the FCS should be checked, usually it is near-normal with a slight skew, although in certain contexts where diets are very homogeneous (such as a refugee camp) a strong mode may be observed. Validation of the FCS against other proxies of food consumption should be run (usually Pearson or Spearman correlations to compare FCS to percent of expenditures on food, total cash expenditures, total cash expenditures on food, Wealth Index, number of meals eaten yesterday, Coping Strategies Index, asset index). The values of the coefficient for these tests should be all (or nearly all) significant, and generally fall between 0.2 and 0.4. Examples of these tests can be found in the FCS guidelines.
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Grouping based on collection	
Collection ID	
Collection name	
Collection description	
Collection URI	

Table 2 Food Consumption groups	
Identifier	
Definition	Groups that describe different levels of food consumption, as measured by the FCS (food consumption score).
Custodian	
Note (public)	
Unit of measurement	Percent of households
Rationale (20-200 words as a guide)	The FCG allows for calculation of prevalences, rather than just mean values (as with the FCS). Standardized thresholds allow consistent methodology to be applied across time and space, although the meaning of these thresholds may not be homogeneous in varied contexts. The thresholds are based on a minimum consumption of 7 days starch with 7 days vegetables, which gives a score of 21 and is considered the threshold between poor and borderline consumption. The addition of 7 days of pulses to this gives a score of 35, which is the threshold between borderline and acceptable. Of course, these scores can be reached through a variety of dietary patterns.
Sources of data	Household surveys
Frequency	As part of CFSVAs, every 3 to 5 years where such information is needed. For food security monitoring, every 1 to 6 months is recommended.
Author of meta data	Peter Horjus
Note (admin)	
Note (translation)	
Concept (link to id)	See tables in section 4, for food group, food item, dietary diversity, food frequency, condiment.
Methodology (100-500 words as a guide)	Using the FCS, thresholds are applied to create three food consumption groups (FCGs). The standard thresholds are </=21 FCS (poor consumption), 21.5 to 35 (borderline consumption), >35 (acceptable consumption). However, these thresholds may be increased from 21/35 to 28/42. This is done primarily in cases where households have a very high frequency of consumption of sugar and oil, even among those with poorer consumption. The rationale behind this is that in areas where even the poorer consumption food patterns include frequent oil and sugar consumption, a diet of starch and vegetables (or other combination, giving a score of 21) accompanied by only the addition of oil and sugar should still be considered 'poor'. Occasionally, some applications of the methodology have used an intermediate level (25/39 for example); an interval of 14 FCS points in between the two thresholds

	should always be kept. Other applications of the methodology apply a third, higher threshold- but this should be described as non-standard if applied. After a baseline survey is conducted and the thresholds are decided, subsequent follow up surveys should apply the same methodology. The application and choice of these thresholds is further described in the FCS guidelines[2]
Disaggregations	None
Limitations	The thresholds do not necessarily carry the same meaning in different contexts/settings. The flexibility of the thresholds is an additional barrier to comparability across contexts. For example, pastoralists with high dairy consumption will score differently than households with little or no dairy consumption, even if the diets are comparable in quality. High sugar/oil diets also require threshold modifications and thus affect ease of comparability.
Related indicators (ids)	The HDDS and IDDS, as described by FANTA , which is a similar methodology but with more rigidly defined food groups and a 1 day recall, which is administered either to women of reproductive age or to the HH as a whole. (some surveys have collected the data for the HDDS and FCS simultaneously, although some exceptions in methodology have to be made to allow the fusion of data collection methodologies). The HDDS and IDDS have no thresholds to create prevalences. Many methodologies also exist to measure actual consumption (through detailed recall or actual weighing of foods eaten) to estimate kcal consumption. The CSI (coping strategies index) and HFIAS (household food insecurity access scale) are also somewhat related, as they are consumption based (from the approach of behavior and coping) and are used also as proxies for food security (although no cut-off thresholds exist to create prevalences). The CSI is another of WFP's generally used proxies for food security, and is described in its respective module. If food expenditure data are gathered, an attempt to harmonize the lists of foods/food items should be made so the data can be better linked, if so desired.
Related module (from Question Bank)	CSI
Related references	WFP Food consumption analysis technical guidance sheet. (http://www.wfp.org/content/technical-guidance-sheet-food-consumption-analysis-calculation-and-use-food-consumption-score-food-s)

[2] http://documents.wfp.org/stellent/groups/public/documents/manual_guide_proced/wfp197216.pdf

	WFP CFSVA guidelines. (http://www.wfp.org/content/comprehensive-food-security-and-vulnerability-analysis-cfsva-guidelines-first-edition)
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Quality control	When choosing thresholds, high frequency modes in the FCS should be checked. For example, if there is a very common score of 22, the choice of keeping the threshold at 21 or moving to a modified threshold can have a large impact on the prevalences, and so careful consideration should be made to the FCS distribution when applying the cutoffs. In some cases, the poor consumption group is very small, so analysis of the characteristics of this group (food consumption patterns, other characteristics) may have low precision due to the small sample in this group.
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Grouping based on collection	
Collection ID	
Collection name	
Collection description	
Collection URI	

Table 3 Food source frequency	
Identifier	
Definition	This indicator (indicators) describe the frequency of responses of food sources for all foods consumed in the past 7 days, as reported in the food consumption module. The food sources frequencies are weighted by the consumption frequency, so that the food sources of foods more frequently eaten are counted more than the food sources for foods less frequently eaten.
Custodian	
Note (public)	
Unit of measurement	Percent of total weighted consumption-days.

Rationale (20-200 words as a guide)	This indicator describes where households are gaining access to their foods, in a relative way. This allows the analyst to provide further analysis of food access and evaluate risks to this access.
Sources of data	Household surveys
Frequency	As part of CFSVAs, every 3 to 5 years where such information is needed. For food security monitoring, every 1 to 6 months is recommended.
Author of meta data	Peter Horjus
Note (admin)	
Note (translation)	
Concept (link to id)	See tables in section 4, for food group, food item, dietary diversity, food frequency, condiment.
Methodology (100-500 words as a guide)	As part of the food consumption module, households are asked for each food item that they report eaten (>0 days) in the past 7 days, what is the main source of that food. (Some variations in the module include asking the secondary source so that households can list more than one source for each food, but this rarely gives additional depth to the results. Only the single-source module is described here). To calculate the score, for every household the data are re-coded into food-days for each food-source combination (ex. Days of grain from purchase, days of grain from barter, days of grain from own production, etc.) for all households. Then all sources are summed (days of grains from markets + days of meant from markets + days of vegetables from markets, etc.) of all the foods in the module. Then all the food-source-days are summed to give one number of total food-days (from all sources). Finally, percents of reported food sources are calculated (e.g. %purchase = days of purchase/total days). Detailed example syntax for these calculations is given in Annex B.
Disaggregations	None, although it is possible to look at the food sources for each of the individual foods eaten, or each of the FCS aggregated food groups.
Limitations	The indicator is often misinterpreted as percent of food from each source (whether measured by kcal, expenditure, etc.). This indicator is a comparative, not absolute indicator. Certain items, such as sugar and oil, are generally purchased by everyone in many contexts, so subsistence agriculturalists that still have high oil and sugar consumption may have higher than expected percent of food sources from markets. The single-source module described here does not gather information about multiple source foods.
Related indicators (ids)	Food Consumption Score, Food Consumption Groups, Coping Strategies Index

Related module (from Question Bank)	Coping Strategies Index
Related references	WFP Food consumption analysis technical guidance sheet. (http://www.wfp.org/content/technical-guidance-sheet-food-consumption-analysis-calculation-and-use-food-consumption-score-food-s) WFP CFSVA guidelines. (http://www.wfp.org/content/comprehensive-food-security-and-vulnerability-analysis-cfsva-guidelines-first-edition) p. 295
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Quality control	As for FCS. Careful data cleaning should be done to be sure that each food eaten has a source listed, and foods not eaten do not have sources listed. Checks with expenditures can be done (for example, if the source of cereals is 'from purchase' in the food consumption module, but no expenditures on cereals reported in the expenditure module, there is a logical inconsistency).
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Collection name	
Collection description	
Collection URI	