

Yemen

mVAM Methodology



vam
food security analysis

The household data presented in the Yemen mVAM bulletins have been collected from late July 2015 to present through live telephone interviews conducted by a call centre located outside the country. Call interviews cover all mobile service providers, and telephone numbers were generated using the random-digit dialing (RDD) method.

As per standard survey procedures, respondents' consent was obtained prior to the interviews. For security and safety measures, all respondents were identified with an anonymous ID.

The questionnaire asked questions on demographics, households' food consumption and minimum dietary diversity for women, coping strategies used, food assistance received, and access to services. In addition, at the end of the survey, an open ended question was asked to give respondents the opportunity to share additional information on the food situation in their communities.

Food Consumption Score (FCS):

The food consumption score (FCS) is a proxy indicator for food security that measures the diversity of household diets, and how frequently food is consumed. The FCS is calculated using the frequency of consumption of eight food groups by a household during the 7 days before the survey using standardized weights for each of the food groups reflecting its respective nutrient density, and then classifies households as having 'poor', 'borderline' or 'acceptable' food consumption. The FCS results in Yemen are calculated using a universal adjusted set of thresholds taking into consideration the high consumption of oil and sugar in the country (poor \leq 28, 28<borderline \leq 42, acceptable $>$ 42). For more details on the food group composition, weighted values and FCS thresholds, please see the [Food Consumption Analysis Technical Guidance Sheet](#).

Reduced Coping Strategies Index (rCSI):

The reduced Coping Strategies Index (rCSI) measures the frequency and severity of the behaviours households engage in when faced with shortages of food or financial resources to buy food. It assesses whether there has been a change in the consumption patterns of a given household. The rCSI is calculated using standard food consumption-based strategies and severity weighting. A higher score indicates that households are employing more frequent and/or extreme negative coping strategies. For the purpose of bulletins, mVAM calculates the mean rCSI of households. For more details on the types of coping strategies considered and their respective severity weighting, please see the [Coping Strategies Index Field Methods Manual](#).

Minimum Dietary Diversity for Women (MDD-W)

In March 2019, WFP introduced the Minimum Dietary

diversity for Women (MDD-W) in the mVAM questionnaire. MDD-W is a proxy indicator which assesses population-level micronutrient adequacy, an important dimension of diet quality, for women's diets. The indicator measures the proportion of women 15 – 49 years who have achieved minimum dietary diversity (i.e. met the threshold of five or more groups out of the ten defined food groups) in the past 24 hours. An open recall method was used to ask the module. When the survey respondent was a man, the operator asked to talk with an adult woman (15-49 years) in the household. For further information on the MDD-W indicator, please see the [Minimum Dietary Diversity for Women A Guide to Measurement](#).

Respondents Selection:

In order to compensate for non-response and attrition, key challenges for high frequency mobile phone surveys, a rotating panel design has been applied to this survey. This methodology has been chosen to reduce the level of change associated with introducing new households into the sample.

The rotating panel also provides real time food security updates and monitor the impact of the conflict on food security in Yemen at any given time.

Every day, respondents are randomly selected from a sample pool generated during the previous rounds of survey and one new respondent is added every day in each stratum or administrative area generated using random digit dialling (RDD) method.

Weighting Methodology:

When interpreting the data, all country-level figures are calculated using IDP and non-IDPs weights. Population estimates are taken from the Task Force on Population Movement data collected for Yemen.

Individual governorates are treated as separate strata using estimates of governorate population from the Task Force on Population Movement. Unadjusted weights are computed by dividing the governorate population by the governorate sample size. To account for the fact that households with more phones are more likely to be selected, these weights are then divided by the number of active mobile phones the household owns. Finally, the weights are then adjusted by post-stratification to account for the sub-populations of IDPs vs non-IDPs using the governorate-level IDP population estimates furnished by the Task Force on Population Movement. The post-stratification weights are computed by calculating the factor that adjusts the ratio of the total post-strata (governorate-level IDP or Non-IDP) weight to the total strata (governorate) weight to match the ratio of the post-strata population to the total strata population (e.g. $wIDP_{inTaizz_i} = w_i [\text{PopIDP}_{inTaizz} / \text{PopTaizz} * \Sigma IDP_{inTaizz} / \Sigma Taizz]$).

Data is collected from a sample of 2457 respondents across 21 governorates.

Table 1: Daily and monthly sample size per governorate

Admin	Daily			Monthly
	# of New Rspnd	# of Old Rspnd	Total sample size	Total sample size
Aden	1	6	7	147
Al Jawf	1	4	5	105
Amran	1	4	5	105
Dhamar	1	6	7	147
Hadramaut	1	4	5	105
Sana'a	1	5	6	126
Al Maharah	1	4	5	105
Shabwah	1	5	6	126
Abyan	1	3	4	84
Al Bayda	1	4	5	105
Ibb	1	6	7	147
Marib	1	4	5	105
Raymah	1	6	7	147
Sa'dah	1	5	6	126
Sana'a City	1	6	7	147
Ad Dali	1	5	6	126
Al Hudaydah	1	4	5	105
Al Mahwit	1	4	5	105
Hajjah	1	3	4	84
Lahj	1	4	5	105
Taizz	1	4	5	105
Total	21	96	117	2457