

# **Food Security and Infant and Young Child Feeding Assessment**

## **Among Syrian and Turkish Households in 13 Districts of Gaziantep and Hatay Provinces**

### **Survey Protocol**

#### **1. Background and Justification**

Turkey is host to 3,624,941 Syrian refugees as of October 1st, 2020 according to UNHCR population estimates<sup>1</sup>. This number constitutes 65% of Syrian refugees in the world. According to the statistics of Directorate General of Migration Management (DGMM) in October 2020 only four provinces (İstanbul, Gaziantep, Hatay and Şanlıurfa) are host to half of the Syrians living under temporary protection. The Turkish government has acknowledged the protracted nature of the crisis and taken full leadership of the response to the Syrian refugee crisis with an evolving institutional structure and approach.

The European Union in partnership with the Turkish government launched the Emergency Social Safety Net (ESSN) in 2016 to assist vulnerable refugees and asylum-seekers in Turkey with an aim of addressing the basic needs of this population, reaching approximately one million individuals by December 2017. Despite the efforts by the government of Turkey and partners, gaps in access to basic services and support persist and the provision of the protective services remain vital for refugees at risk. This is particularly true in the southeast of the country which is densely populated with refugees. Among the challenges of Syrian refugees in Turkey, securing sufficient access to food and basic needs items remains a major one, especially with the eruption of COVID-19 and the devaluation of the Turkish lira.

The Syria Refugee Resilience Plan for Turkey 2020-2021 states that the highest rise in food prices was recorded in May 2019 with an increase of 28%, and since Syrians struggle to find jobs with stable incomes they have a harder time coping with increased food prices. Thus, they end up resorting to negative coping strategies, such as reducing the diversity and quality of food that they consume. Low intake of nutrients could jeopardize their nutritional status in the long term, particularly among vulnerable household members, including young children and pregnant and lactating women. Poor diets can lead to micro-nutrient deficiencies, including anaemia, in addition to leading to obesity and increasing the risk of acquiring diet-related diseases<sup>2</sup>. Furthermore, access to sufficient nutritious food is vital for certain groups of the population such as those with chronic diseases, pregnant women, breast-feeding mothers, and children in their first 1000 days of life. Nutritional deficiencies weaken the immune system of children and can, in combination with general undernourishment, lead to physical disabilities and limited mental development for the rest of their lives.

In brief, high inflation rates resulted in price escalations in high-nutrient food prices. High food prices coupled with the decrease in purchasing power, render food and nutrition a sector in need of interventions to improve the health of the community. Moreover, fluctuation in exchange rates affect

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<sup>1</sup> <https://data2.unhcr.org/en/situations/syria>

<sup>2</sup> Syrian Refugee Resilience Plan 2020 – 2021, pg. 8

various key import-dependent inputs which negatively impact the agricultural sector and local food market prices.

Alongside COVID-19 and the economic situation, the conditions of Syrian refugees and vulnerable families need specific attention. Areas such as awareness on Maternal Nutrition, Infant and Young Children Feeding, high obesity rates, presence of anemia and chronic diseases need to be assessed especially for Syrian refugees; as there are no comprehensive up to date studies or assessments containing such information and data in Turkey. Thus, a comprehensive nutrition and food security assessment would prove useful in the identification of gaps, necessary support needed, how to tailor projects and also provide baseline information regarding nutrition and food security to help with future programming.

## 2. Objectives

The main objective of the nutrition and food security assessment is to analyze the food security and nutrition practices for Syrians under temporary protection and host families and to assess the needs. The assessment also includes maternal nutrition for mothers with children under two years of age and Infant and Young Child Feeding (IYCF) among children aged 0-23 months.

Specific objectives:

- Assess the food security and nutrition needs of Syrians under temporary protection and host families and to draw a meaningful comparison
- To determine the population's overall ability to meet their food needs with assistance
- To determine the coverage of cash grants, and how recipient households spend the cash
- Analyze household dietary habits, food diversity and consumption
- Determine nutrition and food security gaps and suggest appropriate interventions
- Establish baseline data for future programming in Turkey

## 3. Methodology

The Assessment will apply a two-stage cluster sampling method with the neighborhood as the primary sampling unit (PSU) and the household as the basic sampling unit (BSU). Household selection will be randomized.

**Table 1: Summary of Survey Area and Survey Population**

Summary of Survey Area and Survey Population	
Date of Assessment	January-February 2021
Provinces	Gaziantep and Hatay
Districts (13) <sup>3</sup>	Şahinbey, Şehitkamil, Nizip, Islahiye, Oğuzeli (5 in Gaziantep)

<sup>3</sup> Note: in total, Gaziantep and Hatay consist of 24 districts. The 13 districts were selected for the sampling universe because they were considered to have the highest proportion of Syrian households.

Antakya, İskenderun, Kırıkhan, Reyhanlı Altınözü, Yayladağı, Belen, Kumlu (8 Hatay)
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### Sample Size

Parameters used to calculate sample size, as well as the evidence used to inform decision-making, are summarized in the table below. The sample sizes are designed to achieve reasonable precision for estimates of food security indicators at household level and IYCF indicators among children 0-23 months separately for two population groups: Syrian households and Turkish households<sup>4</sup>. Samples sizes were calculated using the following equation:

$$n = \left[ t^2 \times \frac{p \times q}{d^2} \right] \times DEFF$$

Whereas:

n = sample size

t = linked to 95% confidence interval for cluster sampling (2.045)

p = expected prevalence (fraction of 1)

q = 1-p (expected non-prevalence)

d = desired precision

DEFF = design effect

**Table 2: Sample Size Parameters**

Parameter	Early Initiation of Breastfeeding among Children 0-23 Months		Household Food Security		Assumptions / Source
	Syrian	Turkish	Syrian	Turkish	
Estimated prevalence (%)	73%	71%	50%	50%	Early initiation of breastfeeding estimates derived from the 2018 Turkey DHS
Confidence level (%)	95%	95%	95%	95%	Consistent with SMART Assessment Guidance
± Desired precision	10%	10%	10%	10%	Precision based on CARE IYCF sampling guidance to produce reasonable price estimates
Design effect	1.5	1.5	1.5	1.5	Accounting for two-stage cluster sampling
<b>Sample size (children)</b>	<b>124</b>	<b>129</b>	-	-	

<sup>4</sup> Note: household country of origin will be determined based on the head of household

Average HH size	6.0	4.1 (Gaziantep) 3.8 (Hatay)	-	-	Syrian average household size from the 2018 Turkey DHS Turkish average household size from TÜİK Turkish statistical institute 2019 estimates
Proportion of Children under 2 years (%)	5.5%	4.0%	-	-	Based on DGMM estimates of 13.8% children under 5 for Syrian households and 10.0% children under 5 from TÜİK Turkish statistical institute 2019 estimates
% HH non-response rate	10%	10%	10%	10%	Non-response estimate increased to 10% considering urban setting and possible increase in refusals due to COVID-19.
<b>Sample size (households)</b>	<b>414</b>	<b>886</b>	<b>157</b>	<b>157</b>	

### Summary

Based on the early initiation of breast-feeding indicator, it was calculated that 124 Syrian and 129 Turkish children are needed. To achieve this number of children, using the average household sizes it was calculated that at least 886 Turkish households and 414 Syrian households are needed. Thus, the largest sample size was selected (886 households) to ensure sufficient sample sizes across all indicators. Desiring an equal number of Syrian and Turkish households to provide meaningful comparisons, this was rounded up to 900 Syrian households and 900 Turkish households, for a **total sample size of 1,800 households** representing the survey area.

The food security survey will be conducted with all 1800 households, and the IYCF will be conducted only with households with children under 2 years. Based on these calculations the required number of children should be reached.

### Sampling Strategy

It was estimated that 16 households could feasibly be surveyed per cluster per team per day, as described in Table 3 below. Considering a total sample size of 1,800 households and 16 households per cluster, in total **112 clusters** will be surveyed (1,800/16).

**Table 3: Number of Households to be Surveyed per Cluster**

Consideration	Time (minutes)
Total working time (9am-7pm)	600
Travel time	60
Lunch Break	60

Average time in each HH	25
Time traveling between HHs	5
<b>Number of households surveyed per day</b>	<b>16</b>

### First Stage Sampling – Selection of Clusters

The administrative levels of Gaziantep and Hatay Provinces were further disaggregated into districts, neighborhoods. Syrian and Turkish population estimates were available to the level of district. Turkish population estimates were available to the level of the neighborhood. Population estimates for this assessment were not available at block level.

Although precise Syrian population estimates were not available at neighborhood level, the neighborhood populations were inflated proportional to the additional % of Syrians estimated at district-level. We are well aware that the Syrian population is not equally dispersed across neighborhoods, but for the sake of an estimation, we used the district level ratio and then applied the same percentage for each neighborhood.

#### Example:

There are 234,482 Syrian and 926,544 Turkish people in Şahinbey District.

Thus, the ratio of Syrians to Turks is 25.31%.

Karataş is a neighborhood in Şahinbey District with 43,801 Turkish people. So, we applied the 25.31% district level ratio and estimated that 11,086 ( $43,801 \times 25.31\%$ ) Syrian people live in Karataş.

Finding Syrian households will be rather challenging considering that approximately 20% of the population is Syrian. Thus, since Turkish households are in abundance and are easy to find, **only the estimated Syrian populations at neighborhood level** were entered into the ENA for SMART software. Therefore, this assessment follows a non-probability method.<sup>5</sup>

The sampling frame consisted of the syrian population of all neighborhoods in the 13 districts included in this assessment. The 112 clusters were randomly selected using the ENA for SMART software.

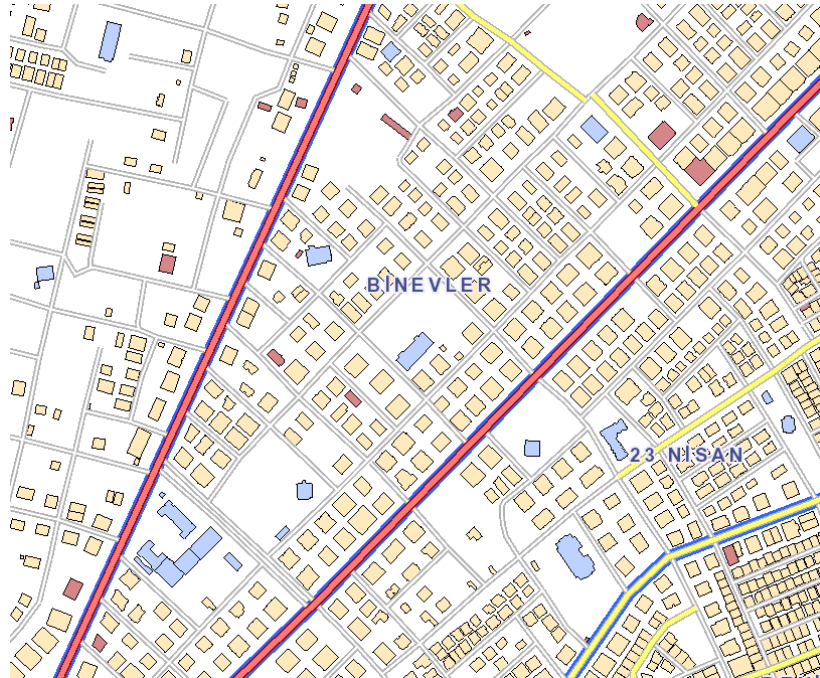
Reserve clusters will only be activated if 10% of clusters or 20% of the child sample size is not reached.

### Second Stage Sampling – Household Selection

The second step will be household selection. However, there are no household lists. This information cannot be obtained from the government either, due to government sensitivities. As neighborhoods in Turkey are very large, segmentation will be applied. There is a Turkish address system (<https://adres.nvi.gov.tr/VatandasIslemleri/AdresSorgu>) that shows each neighborhood and the blocks within the neighborhoods.

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<sup>5</sup> We first entered into the ENA for SMART software, neighbourhoods with the Turkish population and the estimated Syrian population. However, this gave us highly unfeasible clusters due to the high Turkish population. ENA assigned multiple clusters in districts with a very low number of Syrians and a high number of Turkish people. This will be very problematic in the field, since Syrian households are not easy to find. Thus we opted for the option we have mentioned above.



The teams will conduct segmentation within the neighborhoods, using the main streets, parks etc and based roughly on the number of buildings. One segment will be randomly selected using a random number generator. After the segment has been selected walking rules will be applied within this segment to select houses randomly. The method is similar to modified EPI. Teams will start in the middle of the segment and a pen will be spinned to determine a direction. Then every 3rd building will be visited. Schools, public buildings and offices will be excluded. The team will assess the number of apartments within the building and then will use a random number generator to randomly select the door number to knock on. (Example: If there are 24 apartments then 1 to 24 will be entered into the random number generator. If the number 8 comes up, then teams will go to number 8. If there is no one at home this household will be skipped and the procedure will be repeated. Only one household will be assessed per building. If more than one household lives in an apartment, one household will be randomly selected to survey.

In order to achieve an equal number of Syrian and Turkish households (900 TR – 900 SYR), **a cap will be placed on the number of Turkish households per cluster**. Once 8 Turkish households have been surveyed in each cluster, field researchers will apply purposive sampling to identify Syrian households until the required 16 households have been reached. No cap will be applied to the number of Syrian households in a cluster.

### **Mother and Child Eligibility**

All households will be asked the food security and livelihoods questions. All households with a mother or caregiver of a child 0-23 months will be asked the IYCF and maternal nutrition questions. If there is more than one mother or caregiver of a child 0-23 months in a household, one will be randomly selected. If

the selected mother or caregiver has more than one child 0-23 months, all of her children will be eligible for the IYCF questions.

### **COVID-19 Preventative Measures**

Each team will be provided with a thermometer and all field researchers will measure their temperature every morning and evening. Each team will record and report to the survey manager the results of the screening of team members for symptoms twice a day. The survey manager will maintain a special tracking sheet to log the health information of each field researcher twice a day.

Each survey team will be provided with a sufficient number of masks and bottles of hand sanitiser. Medical masks will be worn by all team members and properly disposed of after four hours of use. All survey respondents will be asked to wear a mask during the survey process, if they do not have a mask one will be provided. At least 1 meter physical distance will be maintained at all times, and surveys will be conducted in open air or well-ventilated spaces wherever possible.

Households will be excluded from the assessment a household member has tested positive for COVID-19 within the past 14 days, or a household member has been in direct contact with someone who tested positive for COVID-19 in the past 14 days, or if they are under quarantine.

## **4. Human Resources, Supervision, Training, and Timeline**

### **Survey Teams and Supervision**

The survey will be implemented by 8 teams, each consisting of three field researchers (at least two female, one Turkish and one Syrian). Field supervisors provided by WHH and Crest Point.

### **Survey Training**

All field researchers and supervisors will participate in the 1-day online training. The training will be conducted in two concurrent sessions—one in Arabic (led by Crest Point) and one in Turkish (led by WHH). The training will cover sampling, how to properly ask the survey questions, use of the electronic questionnaire using KoboCollect, and COVID-19 precautionary measures. The questionnaire will be tested during a 1-day survey pilot among families or friends of the field researchers following the online training before the teams deploy for data collection.

## Survey Timeline

Activity	Number of Days	Estimated Dates
Survey Training	1 day	20 January 2021
Pilot Test	1 day	21 January 2021
Data collection, fieldwork activities (Under the supervision of WHH)	14 days	25 Jan - 11 Feb 2021
Data review, corrections, clearance, validation, data analysis	5 days	25 Jan - 19 Feb 2021

## 5. Survey Definitions

**Household:** The household is defined as “people living under the same roof, and eating at the same table”. Visitors are not considered a member of the household for this assessment.

**Syrian Household:** A household whose head of household is originally from Syria

**Turkish Household:** A household whose head of household is originally from Turkey

**Orphan:** An orphan is defined as a child whose mother or father is deceased

**Work:** Work is defined as a paid activity